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The
**CANADIAN
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DENTAL
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Quarterly

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*Royal Canadian
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QUARTERLY



1961-64

The
**ROYAL CANADIAN
DENTAL CORPS**
Quarterly

1964-70

The

**ROYAL CANADIAN
DENTAL CORPS**
Quarterly

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The CFDS Quarterly

Published by authority of Brigadier-General BP Kearney, MBE CD DDS QHDS FICD

This publication serves as a means for the exchange of ideas, experiences and information within the Royal Canadian Dental Corps. Views and opinions expressed are those of the authors and are not necessarily those of the Director General of Dental Services or the Department of National Defence.



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COVER PHOTO:

Ten Years of Publication

1960 - 1970

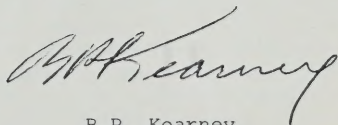
On this, the tenth anniversary of the first issue of The Quarterly, and coincidental with the change in designation of the Dental Services, it was felt appropriate to reprint the "Credo" which established The Quarterly and now launches a second decade of publication. With renewed effort and determination on the part of contributors and editorial staff, The Quarterly should be as vigorous and effective as it has been during the first ten years.

"ALL RANKS AND CIVILIAN PERSONNEL
THE ROYAL CANADIAN DENTAL CORPS

The RCDC Quarterly has been created with the principle aim of providing a means, where no other means exist, of circulating information of interest to all personnel of the Corps. In effect, it should permit us to keep ourselves informed on the general activities of the Corps and its members and to interchange ideas and news in a manner which heretofore has not been possible. It should be an outlet for those of us who are interested in passing along our views on subjects of peculiar interest and of special concern to members of a dental service in the Armed Forces. Financial implications of the publication dictate both its size and its circulation and the editorial board will therefore be required to maintain a high standard for the papers which are selected for publication. The standard will, of course, be in keeping with all other endeavours of the Corps and should furnish an incentive for the meticulous preparation of the material contributed.

It is extremely gratifying to see this, the first issue of The Quarterly published and distributed and to be able to express the hope that it will maintain its purpose with increasing effectiveness for many years to come. The ultimate worth of the publication naturally will depend on the enthusiasm and efforts of the contributors but on this account we have no real concern."

OTTAWA, 30 April 1960.



B.P. Kearney
Brigadier-General
Director General of Dental Services

OCCLUSAL ADJUSTMENT

LCOL. T. D. COBB, CD, DDS.



Occlusal adjustment may be defined as a technique used to correct or eliminate irregularities in the functional relations of the dentition and periodontium.

For many years the term "occlusal equilibration" was interpreted by many practitioners as a procedure whereby the various cusps and fossae of the teeth were ground or reshaped to produce an occlusion which duplicated a fictional and generally unattainable perfect occlusion. There has also been widespread confusion between the requirements for balance as applied to natural dentitions and complete dentures. It is now generally held by those in the research field that attempts to modify the occlusion of a natural dentition to create that of a well-balanced artificial dentition are both contra-indicated and absurd. Countless patients have had their occlusions equilibrated with no beneficial result; or worse, have had disorders produced in what had been a functionally satisfactory occlusion. One must not ignore the wide range of physiological variation in human dentitions - musculature, habits, nervous tension - the list is endless. The human machine is not designed to fixed calibrated standards.

The whole subject of occlusion is a vast one and beyond the scope of this article. The intention here is to outline a procedural approach which the general practitioner may use for the possible relief of discomfort or trauma which has been diagnosed as a result of occlusal irregularities. The object is not to create a perfect occlusion to a fixed mythical standard but to produce a functional occlusion.

The research and clinical team at the University of Michigan has well-documented evidence that premature contacts

and cuspal interference in the centric slide and in the lateral excursions of the mandible, can and do constitute causes of unnatural temporo-mandibular joint action and/or irregular use and tonus of the muscles of mastication. Chronic pain and discomfort can result. The patient may, or in a great many cases may not, be aware of the causative occlusal discrepancy and here the subconscious attempt to avoid or compensate for the irregularity may lead to imbalance in muscle function or temporo-mandibular joint action.

How do we attempt to improve or correct the condition? The basic method and principles will be outlined following two definitions and a basic grinding principle pertinent to occlusal adjustment.

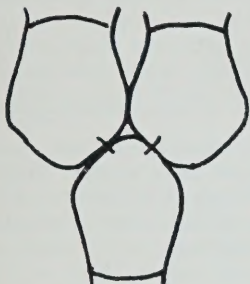
Centric relation. The occlusal contact pattern when the mandible is in its most retruded position and the condyle is in its most posterior position in the glenoid fossa. Opening the jaws in this position is almost pure hinge action. When recording the bite in centric relation, accuracy is best achieved by the operator holding the patient's mandible with his hand and controlling the closure movements. This generally requires some time to obtain muscle relaxation by the patient.

Centric occlusion. The occlusal contact pattern and mandibular position when the maximum interdigitation of the maxillary and mandibular cusps is effected, normally the habitual occlusion of the patient.

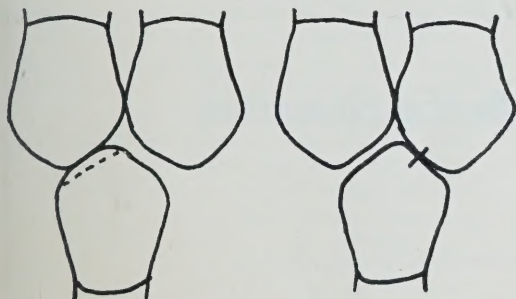
Removal of premature contacts or irregularities by grinding. Whenever possible, and this should be most times, grind the inclines of the fossae and cusps, bearing in mind that the vertical

contacts or stops in centric occlusion are not altered. The vertical dimension *must be maintained*. It is not possible to cover every excursion in a diagram but the following will illustrate the principle:

Centric Occlusion



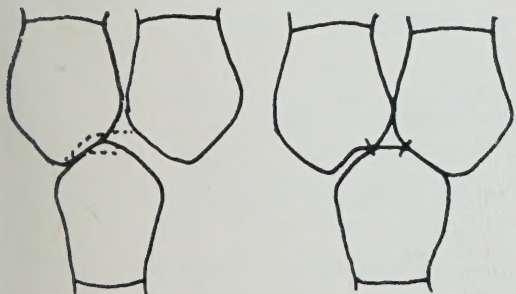
INCORRECT GRINDING



Centric Relation
(dotted line is
incorrect grinding)

Centric Occlusion
(vertical stop is
missing)

CORRECT GRINDING



Centric Relation
(dotted line is
correct removal
pattern)

Centric Occlusion
(note that the
stops are
maintained)

Method of occlusal adjustment

- Make impressions and obtain casts.

- Mount the maxillary cast on an adjustable articulator using a standard face-bow method.
- Obtain a wax bite in centric relation, i.e., the most retruded position of the mandible.
- Using the centric relation registration, mount the mandibular cast on the articulator.
- Secure a wax protrusive registration and use this to establish condylar angles on the articulator.
- Dismiss the patient.
- It is now possible to observe the centric slide from centric relation to centric occlusion on the articulator and note any prematurities or interferences. Using thin green wax and/or articulating paper, adjust interferences on the casts in the centric slide in order of their appearance. Record each adjustment on a sequential worksheet as the articulator occlusion is corrected; e.g.,

centric relation

1. 7| mesial incline - disto-buccal cusp
2. |5 buccal incline - lingual cusp

- When the slide from centric relation to centric occlusion presents no further irregularities, proceed to the lateral excursions and adjust the working slides, recording the sequence on the worksheet.
 - Adjust the protrusive, if necessary.
 - Adjust the balancing sides in lateral movements.
 - At the next appointment, adjust the patient's occlusion using the same methods and using the worksheet as a guide. Remember to obtain patient relaxation and guide the mandible to centric relation with your hand.
 - Having secured acceptable smooth occlusal movements, polish the occlusal areas to offset possible annoying rough or grating areas from the adjustment.
- Many patients with temporo-mandibular

joint or muscular discomfort have been relieved with this technique. It is not a panacea for all occlusal problems. When carried out by experts in the field such as Dr. Ramfjord and his colleagues at the University of Michigan, after definitive diagnoses, the results can be remarkable. Dr. Ramfjord has pointed out that all aspects of dental treatment are involved. If this concept is kept in mind by the general practitioner, many occlusal problems will not be initiated. Ask yourself when placing the next MOD amalgam restoration, inserting that fixed bridge or providing a removable partial denture: "Am I creating a premature contact in centric slide or any other of the mandibular excursions?" One patient will happily grind in his own occlusion where the next may unconsciously avoid the inter-

ference introduced and develop the symptoms and problems discussed earlier.

This is obviously not a complete discussion on all aspects affecting occlusion but is an attempt to outline the concept and basic method of approach of a leading authority in his field. It is a solution to some problems and if kept in mind may prevent initiating these very problems when other dental procedures are being performed.

Detailed discussion and methods as demonstrated in a recent course at the Kellogg Foundation Institute, University of Michigan, are contained in the Ramfjord and Ash text, "Occlusion", Philadelphia and London, W.B. Saunders Co., 1966.

Canadian Fund for Dental Education

IN 1969:

Dentists' contributions increased 36% to \$25,660

Dental organizations contributed \$30,367

Dental companies contributed \$23,655

Fellowship awards increased to \$38,960

Grants to Canada's ten dental faculties continued for a total of \$34,000 since 1965

A \$5,000 grant to the Association of Canadian Faculties of Dentistry helped to foster communication among the Faculties

A Student Field Training Program at Dalhousie University was financed

The first Canadian Dental Students' Conference, held at CDA Headquarters, Toronto, was funded

The enthusiastic support given the Fund allowed the CFDE to make commitments to help meet dentistry's needs in the 1970s.

IF DENTISTRY MATTERS.....SO DOES DENTAL EDUCATION



PREVENTIVE DENTISTRY PROGRAM

LT. COL. MILTON J. KNAPP, DDS, MS, US ARMY.

The SAFE (Self-Applied Fluoride Expedient Project

For the first time in the history of Army or civilian dental research, the feasibility of a program to optimize the oral health level of great numbers of men has been demonstrated.

The SAFE research project, developed to bring under control a nearly universal disease, has been incorporated into the overall Army Oral Health Maintenance Program. Army personnel who are less than 25 years of age have high susceptibility to dental caries and can be expected to develop an average of two to three new carious lesions per year. Since there are 1.2 million men in the Army under age 25, this means that each year at least 2.5 million carious lesions will develop that should be restored if ideal oral health levels are to be achieved. A conservative cost estimate for restorations would average \$10 per man per year if all needed care could be provided within present manpower authorizations. Currently, the total dental care treatment load exceeds treatment capability by more than five times. As a means of insuring better oral health for military personnel and of reducing dental care costs, a three-step anticaries program based on Army-sponsored dental research findings was initiated by the Army Dental Corps in 1968. This program, if fully implemented, would nearly have eliminated the need for restorative procedures for newly developed carious lesions during the two to three years noncareer personnel spend on active duty. The cost of providing this preventive therapy is \$4 per person per year, principally for salaries of hygienists. Unfortunately, limited availability of hygienists made it impossible to provide the treatment for more than a third of all

Army personnel. Therefore, even though the program had great potential for controlling dental caries and reducing treatment costs, full implementation could not be expected within the immediate future.

However, this problem has been partially solved through a more efficient, inexpensive program (SAFE) developed from the original Army-sponsored research on the three-step fluoride method described. Under the SAFE project, groups of up to 200 men will self-apply a prepackaged mix of zirconium silicate and stannous fluoride under the supervision of trained personnel; thereafter they will brush their teeth daily with a fluoride dentifrice. Equally as effective as the hygienist-applied three-step fluoride program, this program will cost only 40 cents per man per year.

The SAFE project is in the process of implementation and will involve all non-careerists under age 25. The three-step method of prevention will continue to be administered to all men over 25, since this program involved an administered prophylaxis which is vital to the prevention of periodontal disease so prevalent in the over-25 age group.

As the SAFE project prevents the development of new carious lesions, it will be possible to expend greater efforts on the care of accumulated oral disease conditions in newly enlisted and inducted personnel. Each of the 500,000 individuals who enter the Army annually has an average of eight untreated carious teeth; consequently there is a total immediate restorative problem involving 4 million teeth. The cost to restore newly developed carious teeth each year in Army personnel under 25 years of age is estimated at \$12 million (direct cost); the cost to prevent most of these same new lesions under the SAFE project is estim-

ated at \$480,000 per year. Furthermore, implementation of the SAFE project with available resources is feasible, whereas restoring 2.4 million new carious lesions each year is not. Thus, through the SAFE project, soldiers can be provided with oral health care for optimal combat effectiveness at a cost totaling less than 5% of the cost of restoring carious lesions that would otherwise result.

Motivational Program (Motivation of a Soldier to a Self-Care Oral Hygiene Program)

Dental caries and periodontitis are chronic diseases that effect virtually the entire Army population throughout most of their lives, as long as they have natural teeth. Both diseases are preventable or controllable, but only through continuous cooperative effort between dentists and patients. Problems caused by oral diseases can never be solved by professional treatment alone and, until recently, no effective means existed for development of a needed patient-motivational program. A three-year dental health motivational project has recently culminated in the development of a program for mass patient motivation for proper self-care. This motivational program consists of:

- Large group sensitization
- Small group participation
- Individual chairside counseling.

The effectiveness of this program was proved by the following facts. Results from the study demonstrate that through this approach, effective educational programs can be developed to motivate patients to the practice of proper self-care. The number of persons committed to proper self-care was statistically highly significant when control groups

were compared to groups that had received the motivational program. Based on results from the study, a program of mass patient education is being developed by the Army Dental Corps for presentation in conjunction with a planned twice-a-year self-application of an anticariogenic preventive dentistry paste (SAFE Project). Change to the practice of self-care and acceptance of the proposition that it is never too late to begin care and that the soldier must help himself and thereby help the dentist to care for his oral health, were increased by 23.8% after study groups were exposed to a motivational program. Furthermore, there was a directly correlated increase in the number of persons committed, and in degree of their commitment, to proper self-care as the scope of the education effort was increased. In a control group 12.4% were committed to a regular routine of self-care, whereas 36.2% of a similar group exposed to the motivation program were committed to oral self-care. The latter figure includes only those soldiers motivated to a program of total self-care. It does not take into consideration the many soldiers who were motivated toward a self-care program in various degrees of commitment that were less than total commitment.

The potential results from a successful patient motivational program have long been recognized but have never been actualized. The feasibility of such a program has been proved and the Army Dental Corps educational programs have begun to use the findings from this pioneer study.

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Dentistry

In 1857, medical officers were asked to conserve teeth rather than simply extract them, and for this purpose sets of filling instruments were issued. Even in the most skillful hands these were woefully inadequate and so the medical officers wisely refrained from using them.

SILVER PLATED DIES

in CROWN AND BRIDGE CONSTRUCTION

MAJOR I.A.C. MACDONALD, CD, DDS.



The most accurate dies with the best surface detail for crown and bridge construction are obtained when polysulphide rubber impressions are metallized with silver powder and plated in a silver cyanide bath. Although there have been vast improvements in the biological concept and the technological developments associated with fixed bridges over the past fifty years, cast restorations still give imperfect reproductions at best and therefore they must be improved by adapting them to the teeth or to an accurate facsimile such as the silver plated die.

Christensen¹ found that a group of critical dentists would reject a defect of 40 microns on accessible margins of restorations but would accept discrepancies of 120 microns in inaccessible areas. Needless to say, acceptance of such defects in inaccessible areas invites failure of the restoration. Dies made of stone are too fragile and it is not possible to burnish, swage or polish margins of restorations on dies made from this material. Silver dies on the other hand provide a means of finishing all margins and help to produce a cast restoration superior to those made by other techniques.

Advantages of Silver Dies

- Silver plated dies are more accurate and have finer detail than the best stone dies.²
- A wax pattern can be carved on a silver die without the hazard of marginal deformation.
- Silver plated dies have a Brinell Hardness of 110-115 whereas burnishable gold alloys have a B.H. of 80-90. Therefore the surface of the die will not be damaged during burnishing and trimming.³
- Marginal visibility is more acute

on silver plated dies than on stone dies.

Impression Procedures

A variety of impression materials have been employed over the years for making fixed bridges but the development and more recent improvements in the elastic impression materials have been one of the most significant contributions to modern restorative dentistry. The two basic types of elastic or synthetic rubber base impression materials in use today⁴ are polysulphide polymers and silicones. The polysulphide polymers appeared on the market around 1953 and in 1956 the silicones were developed. By that time the term "rubber base impression material" was so closely associated with the polysulphide polymer type that common usage terminology made a distinction between "rubber base" and silicone impressions. Both of these materials make satisfactory impressions; however the polysulphide polymer is the only type suitable for electroplating. Silicone is not suitable for electroplating because distortion invariably occurs before an adequate layer of silver is built up.

Custom impression trays which are essential for making rubber base impressions are made by adapting acrylic tray resin over a diagnostic cast. The cast is first prepared for the tray resin by adapting a spacer made from a triple layer of asbestos strip or a double layer of base-plate wax. This creates a uniform space of 2 to 4 mm between the tray and the tissues. Polymerization of rubber base material is accompanied by slight shrinkage which increases with the thickness of the material.⁵ Most accurate results are therefore obtained when the rubber is used in thin layers. In most clinical situations about 2 to 4 mm thickness of rubber is optimal.

Other important considerations in the design of a tray are the inclusion of a suitable handle, provision of occlusal stops and the correct extension of the periphery of the tray. The periphery should be at the level of the gingival margin except on teeth with preparations where it should be extended 3 to 4 mm beyond the gingival margin area. Maxillary trays are made without a palate and resemble mandibular trays in general shape.

Impression Making

It is not the intention to give a detailed step-by-step procedure for making impressions with polysulphide rubber base material as professional journals and the manufacturers' instructions adequately cover the various techniques. There are however, certain properties associated with polysulphide rubber that must be appreciated in order to obtain an accurate impression. The setting time of this material is influenced by a high temperature and/or humidity which increase the polymerization rate. Once the material enters the mouth the rate of polymerization is at least doubled. Polysulphides are not entirely stable dimensionally. Polymerization continues slowly for about 24 hours after removal from the mouth and is accompanied by a slight shrinkage but if the thickness of the rubber is maintained at 2-4 mm and the dies made immediately it is unlikely that any shrinkage would be detected clinically.⁶

The dentist and his assistant must be familiar with the physical properties of this material and should have a standardized routine for making the impression. A suggested method is for the dentist to mix the light-bodied or syringe material (if the syringe-tray technique is to be used) and for the assistant to mix the heavy-bodied or tray material. The light-bodied material is started on a cool slab to slow polymerization and when the base and catalyst are partly mixed the assistant starts mixing the heavy-bodied material. When the syringe is loaded (using a technique similar to loading an amalgam carrier) the mouth is prepared and dried. By this time the assistant has loaded the custom tray with heavy-bodied material and

assists the dentist by using the air syringe to force the rubber into the gingival crevices as the dentist injects the syringe material around the prepared teeth. The tray with the heavy-bodied rubber is then quickly carried to place and seated until the stops come in contact with the teeth. The tray should remain undisturbed until at least ten minutes have elapsed from the time the tray was inserted in the mouth. The tray may be left as long as convenient beyond the minimum time as the elastic qualities will improve and the chances of distortion on removing the impression will be reduced.

Having allowed the impression tray to remain in the mouth the minimum of time, it is removed and inspected for the following:

- a definite finishing line for each preparation should be clearly visible and these areas of the impression contained within the tray;
- the impression must be free of bubbles and voids;
- there should be 2-4 mm of rubber base impression material between the tray and the impression.

If the impression meets these requirements it is then ready for electroplating.

Preparation for Electroplating

Instruments and materials:

- artist or inlay brush
- electroplater
- 6" x 6" plastic container
- 20-gauge insulated copper wire (bell wire)
- powdered silver
- electroplating solution
- utility wax
- wax spatula
- small rubber bulb and pipette.

There are several methods for making laboratory dies in silver. The one described here silver plates the impression of the prepared teeth only, the remainder of the cast is made of stone.

The impression is washed thoroughly with cold water and dried with air. With an inlay or artist's brush that has had the bristles cut to a length of app-

roximately three-sixteenths of an inch, powdered silver is burnished into the impression of the prepared teeth and slightly beyond the margins. A narrow path of silver is then burnished on the rubber to a sufficient distance from the preparation so that no distortion will be caused to the areas of the prepared teeth when the conductor wires are inserted into the rubber (Figure 1).

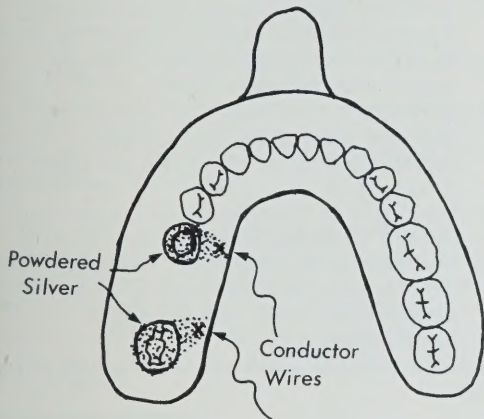


Figure 1

When all areas to be silverplated are covered with silver, the excess is blown off with a strong blast of air. This prevents soft spots in the dies which are caused by excess powder.

Electroplating

The conductor wires are then inserted into the silver sensitized rubber. They are 20-gauge insulated copper wire, four to six inches in length, exposed three-quarters of an inch at one end and one-eighth inch at the other. The wire is cut diagonally at the shorter end to make a sharp point and inserted into the sensitized rubber away from any critical areas. The wire should be pushed into the impression until the insulation reaches the rubber surface. If bare wires are exposed, the current will short and bubbles of gas will be seen to rise from the bare wires. The wires are twisted together and the free ends connected to the cathode terminal of the electroplater. A pure silver anode is connected to the anode terminal.

The impression is placed in the plating solution which can be purchased from a supply house or made up in a pharmacy. A small rubber bulb pipette is filled with plating solution which is injected into each tooth area to be silverplated to dislodge entrapped air. The rheostat is set to give a reading of 15ma for each tooth or preparation to be electroplated. The impression is plated for twenty to thirty minutes until an even layer of silver has been deposited.

The impression is removed from the bath, washed, dried and examined for areas that have failed to electroplate. If necessary more silver powder is added and the excess is blown off.

Using a wax spatula, a ring of red utility wax is flowed around each tooth for which a separate die is required (Figure 2).

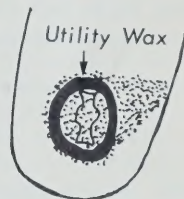


Figure 2

Silver will continue to be deposited in the preparations but will be connected to the rest of the metallized area by a thin flash of silver under the wax. This thin silver flash is easily cut when the plating is complete and allows for easy removal of dies. The impression is returned to the bath and entrapped air is removed as before. The current setting is the same and plating is allowed to continue twelve to fifteen hours by which time there should be a build-up of silver to create a smooth deposit of sufficient thickness and strength for adapting the casting to the die in the finishing process. During the final hour or so the current can be increased to 75ma per die. This gives a rough inner surface to the silver shell which adheres better to the acrylic resin used to make the core of the die.

The plating is now complete. The impression is removed from the bath, washed

thoroughly in running water and dried with air. Dowel pins are inserted and autocuring resin is brushed on until there is a hemispherical mound of acrylic about each dowel. After the resin has set, one or two depressions are created with a #8 round bur. This aids in exact seating of the die in the stone cast. The surface of the acrylic is painted with liquid soap avoiding the metallized area and the remainder of the impression is poured in stone. When the stone is set the cast is carefully removed from the impression and excess silver flash is removed with discs. The dowel and dies are pressed out of the cast and further trimmed with heatless stones.

Summary

The success of a crown or bridge depends to a large extent on the fit of cast restorations on the abutment teeth. A method of fabricating accurate silver dies which are strong

enough to fit and completely finish castings out of the mouth has been described.

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A STERILE TECHNIQUE FOR ORAL SURGERY

CAPT. H. M. AMOS, DDS.



An objection to the use of an aseptic technique in oral surgery is that it is not practical in a busy practice dealing with minor oral surgery. Infection however does not differentiate minor from major surgery. The relatively low incidence of infection following oral surgical procedures is attributed to "man's acquired tolerance for his own micro-organisms". Nevertheless these same micro-organisms transmitted to another individual may result in virulent infection. This justifies the need for an aseptic technique in areas that defy complete bacterial sterilization such as the mouth, nasal and antral cavities since cross infections can be passed from dentist to patient,

from patient to dentist and from patient to patient via non-sterile instruments and equipment.

Stages of Maintaining Sterility

There are three requirements to maintain sterility of equipment:

- proper sterilization,
- maintaining sterility during storage, and
- a sterile technique for utilization.

Sterilization Techniques

Before sterilization, instruments must

be thoroughly cleaned either with ultrasonic equipment or diligent use of brushes, soap and water. Dry heat, moist heat and toxic gas are the only methods of effective and complete sterilization. Other methods such as cold chemical sterilization and boiling water are either ineffective against spores or take excessively long to be effective.

Toxic gas (ethylene oxide) has the most ideal physical properties as a sterilizing agent since it is kind to instruments, effective against all organisms and stores well. However, it is expensive, requires an exhaust system and takes four hours to be effective.

"Dry heat of at least 160°C for one or two hours will...kill all forms of life."¹ However, to be totally effective, it must act on bare instruments since it does not penetrate cloth or paper wrappers. It does not corrode instruments.

With regard to moist heat, Reddish states: "No living thing can survive ten minutes direct exposure to saturated steam at 121°C which is attained under ideal conditions at sea level with fifteen pounds in a steam pressure sterilizer or autoclave."¹ Furthermore, the autoclave is probably the most practical method since it requires the least amount of time and is inexpensive. However, it corrodes and dulls instruments if water is the source of moisture.

Storage

In order to maintain sterility, instruments must be wrapped prior to sterilization in paper, cotton or nylon containers. These packages can contain individual or groups of instruments for specific purposes, e.g., simple extraction kit, impaction kit, periodontal kit.

Instruments wrapped in paper or cotton must be resterilized every four weeks while those in nylon need to be resterilized only once a year. Both cotton and nylon wrappers are reusable with nylon having the further advantage of transparency, thus allowing the operator to identify

the contents of the package without opening it. Paper wrappers are not reusable.

Packages should be secured with autoclave tape which indicates that sterilization has taken place.

Utilization Technique

The following is a suggested method of operation which will maintain sterility and can be used as a guideline in establishing one's own technique.

The room and the equipment must be kept meticulously clean. At the beginning of each day, street clothes are exchanged for clean linen trousers and blouse. To start the scrub routine, a cap and face mask are first donned, then the hands and forearms are scrubbed to the elbows with Betadine solution or hexachlorophene soap. A clean orangewood stick is used to clean under the fingernails after the first application of soap and water. A sterile brush is then taken from its container, held in one hand while moistening with soap and water and scrubbing commenced first with the fingernails, then down each individual finger paying particular attention to the interdigital area. Next the palm and back of the hand are scrubbed, then the forearm, working toward the elbow. The brush is rinsed, transferred to the scrubbed hand and the process repeated. When scrubbing with the brush is completed, the hands and forearms are rinsed, starting with the fingertips, in such a manner that the water runs down toward the elbows and not off the hands. The hands are dried with a sterile towel, lightly dusted with powder (or creamed) and sterile gloves are donned. Care is taken to use a minimum of dusting powder because excessive amounts may contaminate a wound causing irritation and granuloma formation.

The scrub routine for the first operation of the day should take a total of ten minutes but for succeeding operations, three minutes are satisfactory.

The operator then holds a sterile paper drape to his chest so that a roving assistant can clip it to his blouse in such a manner as to avoid contact with the sterile outer surface. This drape should hang from the shoulders to the waist.

A Mayo stand tray system is most convenient. Various types of surgical kits such as for a simple extraction, impaction, fracture, etc., are set up on separate trays which are sterilized as a unit. As well as surgical instruments, each kit should include suction tubing and tips, two sterile drapes, towel clips, anaesthetic agents and needles. When needed, the required tray is placed directly on the stand, autoclave tape is removed and an assistant opens the kit to expose the sterile arrangement.

The patient is draped with a chest drape which covers him from neck to waist and hangs over both arms. He is told to keep his hands below the drape at all times. A head drape may then be applied by placing the centre under the patient's head and wrapping the ends over the face to cover the hair, eyes and nose. The ends are secured with a towel clip and the head drape is also clipped to the chest drape on both sides. This leaves only the oral area exposed. The head drape can be wrapped to leave the eyes exposed but eye coverage has the advantage of protection from operating lights and dropped instruments. The rubber tubing is clipped to the chest drape and the end allowed to hang below waist level where it is attached by the roving assistant to the suction apparatus.

The field above the level of the chair arms is considered to be sterile

while anything dropped below that height is contaminated. The surgical operation may then proceed.

Summary

The use of a sterile surgical technique will prevent cross infections to a maximum degree. This technique can be attained through complete cleansing and sterilizing of equipment, adequate protection during storage and the proper utilization of equipment.

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RECURRENT ACUTE ORAL ULCERATIONS

CAPT. D. L. POY, DMD



The management of patients with recurrent acute oral ulcerations has been a vexing problem for the dentist and the physician due to frequency of occurrence, unknown etiology and a lack of specific

therapy. New concepts in the etiology, diagnosis and treatment procedures for primary herpes, recurrent labial herpes (fever blister) and recurrent aphthous stomatitis (canker sore) are outlined.

PRIMARY HERPES

(herpetic gingivostomatitis)

A systemic illness with oral ulcerations as one of its manifestations. Eighty-five percent of cases occur under the age of five. However, fifteen percent of cases will occur in the adult. In some cases it is possible to have minimal systemic signs and consequently the illness can be confused with recurrent aphthous stomatitis.

Causative agent: Herpes simplex virus.

Predisposing factor: no previous herpes simplex virus infection.

Prodromata: fever of 99 to 100 or higher in children; malaise; cervical lymphadenopathy; herpes simplex virus neutralizing antibody in the serum.

Symptoms: intense generalized oral pain; increased salivation and foul breath.

Lesion sites: usually all of the oral mucosa is involved simultaneously.

Clinical appearance: large superficial ulcers with a yellow pseudomembrane; diffuse erythema and edema; marginal gingival inflammation.

Duration of lesions: ten to fourteen days.

Histopathology: intra-epithelial necrosis; swelling of epithelial cells; intra-nuclear inclusions; mononuclear cells predominating; healing without scar formation.

Serum antibodies to herpes simplex develop during the course of this infection.

Treatment: Steroids, either systemic or topical, should not be used in the treatment of viral infections. For the relief of pain, a topical anaesthetic spray such as dyclonine hydrochloride 0.5% (Dyclone) may be applied directly to the lesion using an atomizer. Elixir of Benadryl may also be used as a topical anaesthetic oral rinse as follows: adults 2 tsp., children 1 tsp., three times daily to a maximum daily dose for adults or children of 200 mg. A weak sodium bicarbonate solution ($\frac{1}{2}$ tsp. in six ounces of warm water) as an oral rinse will cleanse the oral mucosa and act as an obtundent.

An antiviral agent, 5-iodo-2 deoxyuridine (Stoxil) 0.1% solution can be used as an oral rinse. This agent prevents the replication of the virus by interfering with the nucleic acids without injury to the tissues. However,

it is unable to eradicate the virus completely.

RECURRENT LABIAL HERPES

(fever blister, cold sore)

A localized vesicular lesion on the lip which ruptures, leaving a brown scab which remains on the erythematous papule until the lesion resolves. This occurs anytime after the primary infection in about forty percent of the population.

Causative agent: herpes simplex virus. It is not clear if the primary herpetic infection is a prerequisite for the recurrent labial lesions. The antigenic properties of the herpes simplex virus isolated from repeated recurrent labial herpetic lesions in the same individual are not similar for each isolation, suggesting the possibility of the invasion by a variant of the virus each time a new lesion occurs.

Precipitating factors: fever from other illnesses; psychic stress; trauma; sunlight.

Prodromata: localized paresthesia (burning sensation).

Symptoms: localized labial pain. Systemic symptoms are absent unless due to a coexisting illness.

Lesion sites: mucocutaneous junction of the lips.

Clinical appearance: elevated lesions (papules) with vesicles and erythematous base; scab formation.

Duration of lesions: ten to fourteen days.

Histopathology: identical to lesion of primary herpes; usually heals without scarring. If an oral cytology smear is taken of the lesions of primary herpes and recurrent labial herpes, epithelial cells undergoing a characteristic "ballooning degeneration" will be observed.

Serum herpes simplex antibody titre is elevated after the lesions are healed.

Treatment: The use of systemic or topical steroids such as Kenalog in Orabase is contra-indicated in healing labial herpes because of the danger of the steroid facilitating the spread of the virus. An antiviral compound such as 0.5% ointment of Stoxil is effective in reducing the size of the early vesicular stage of the lesion. The ointment, applied every two hours or more frequently if necessary to keep the lesion covered while the individual is awake and a heavy application applied at bedtime will greatly reduce

the pain and cut healing time in half.

An effective herpes simplex vaccine is urgently needed, especially to protect young children.

APHTHOUS STOMATITIS

Recurrent Aphthous Stomatitis (canker sore, recurrent aphthous)

Recurrent localized intra-oral ulcers not preceded by a primary infection. Thirty percent of the population is affected in ages ranging from two to seventy years. Females are affected in the ratio of 2:1 and there is familial tendency.

Causative agent: L-form of streptococcus sanguis and a delayed type of hypersensitivity to this bacterial antigen are probable causative mechanisms.

Precipitating factors: mucosal trauma; psychic stress; endocrine hormones often related to the menstrual cycle.

Prodromata: mucosal nodule; localized erythema.

Symptoms: intense localized pain; generalized oral edema.

Lesion sites: (in order of decreasing frequency: buccal mucosa; buccal sulci; lateral margin of tongue; labial mucosa; floor of mouth; soft palate; marginal gingiva; pharynx).

Clinical appearance: single or multiple epithelial erosions with a gray-white membrane and an erythematous margin but minimal adjacent erythema.

Duration of lesion: seven to ten days.

Histopathology: necrosis extends through the epithelium with mononuclear cells predominating; no intranuclear inclusions; usually heals without scarring.

There is no change in the serum herpes simplex antibodies.

Periadenitis Aphthae

A more severe form of aphthous stomatitis occurring in approximately ten to fifteen percent of aphthous stomatitis patients.

Causative agent: probably an L-form of streptococcus sanguis.

Precipitating factors: mucosal trauma; endocrine hormones.

Prodromata: larger and deeper mucosal

nodules; localized erythema.

Symptoms: intense local pain; immobility of affected area.

Lesion sites: identical to recurrent aphthous stomatitis.

Clinical appearance: large (2 cm) single or multiple lesions with deep craters and elevated margins; extensive edema of affected area; gray-white membrane and erythematous margins.

Duration of lesions: three weeks to two months.

Histopathology: identical to recurrent aphthous stomatitis but more intense with extension to the periglandular area (mucous glands); heals with scarring.

Treatment: steroid preparations have been found to be effective in reducing tissue damage from the products of an antigen-antibody reaction in delayed type hypersensitivity diseases. A topical synthetic cortico-steroid in an emollient base (Kenalog in Orabase) is applied to oral ulcers at least four times daily (after meals and at bedtime). It is most effective if started in the early stages of the disease. Systemic steroid therapy is restricted to severe periadenitis cases in which antibiotic therapy has not been beneficial and there has been marked destruction of oral and pharyngeal tissues. Topical anaesthetic agents are helpful in reducing pain and are used exactly the same as in supportive treatment of primary herpes.

Antibiotic achromycin oral suspension is used to treat patients over five years of age who have multiple lesions and frequent recurrence. This preparation contains uncoated tetracycline crystals (250 mg per 5 ml) in a suspension material that adheres to ulcerated mucous membranes. One tsp. (5 ml) is held in the mouth for two minutes, then swallowed. Treatment is applied four times daily (after meals and at bedtime) for three to five days depending on the severity of the disease.

A few patients may have gastrointestinal complaints. In these cases the antibiotic preparation is very effective topically when used as an oral rinse. Resistance of the organism to tetracycline may develop in some cases after intermittent use over a two-year period.

Patients with Behcet's syndrome, Stevens-Johnson disease or Reiter's syndrome may have clinical and histopathological features in common with recurrent aphthous

stomatitis. In these diseases, tissues other than the oral mucosa such as tissues of the eye or the genitals will be involved.

SUMMARY

The salient features of primary herpes,

recurrent labial herpes and aphthous stomatitis have been outlined and treatments based on the etiology of the diseases outlined.

DENTAL PROBLEMS AT ALTITUDE

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A toothache anywhere is bad news but a toothache while you're flying is trouble you can do without. Given the Navy's high standards of dentistry and considering the number of hours pilots and aircrewmen fly, this doesn't happen often. When it does, it can be extremely painful and sometimes incapacitating.

Toothache at altitude, known as aerodontalgia, usually represents an acute flare up of subclinical symptoms. Reduced barometric pressure is the precipitating factor, either in flight or during a pressure chamber run. Some years ago, the cause was thought to be simply expansion of gas trapped underneath fillings. More recent thinking is that changes in atmospheric pressure aggravate the impaired circulation in irritated or diseased tooth pulp.¹ Reduced barometric pressure usually does not affect normal teeth or teeth with open cavities.

Generally speaking, toothache at altitude occurs during ascent and begins at 5,000 feet. Some persons have only one episode of pain with no recurrence. In other cases, the toothache shows a consistent pattern occurring at a specific altitude and disappearing at the same altitude when direction is reversed.

If pain occurs during ascent, the tooth is usually vital. If pain occurs during descent, the tooth is probably non-vital, perhaps one in which the nerve has been removed.

A less frequent source of toothache

during ascent is the presence of an abscess at the root of the tooth. Such an abscess can generate a small amount of trapped gas which causes severe pain on expansion. In other cases a chronic abscess can cause dull pain on descent which can persist on the ground for several days.

When toothache strikes at, say, 14,000 feet, the only thing you can do about it at the time is descend and even this is not always immediately possible. On completion of the flight or chamber run, get in touch with your flight surgeon or dental officer.

The offending tooth may turn out to be one which was recently filled. Speaking at a meeting of military physiologists last year, an Air Force dental surgeon stated that it has been his experience that it usually required 48 to 72 hours for the dental pulp to quiet down after dental treatment. In some cases, a new filling causes symptoms for several weeks and then as tissue changes stabilize, symptoms no longer occur. Deep-seated silver fillings without underlying base materials or insulators, mechanically imperfect fillings and inadequately filled root canals can be troublemakers when barometric pressure is reduced.

In some cases, when a tooth hurts at altitude the trouble is not in the tooth itself; it hurts because of pain referred from some other source. Pressure in the maxillary sinus during descent can cause

pressure on the tooth nerves of the upper jaw which, in turn, causes the teeth to ache. If dental examination fails to reveal abnormalities, the possibility of aerosinusitis should be checked out.

Another source of referred pain is inflammation of the gum around a partially erupted tooth. Unerupted or impacted third molars or wisdom teeth can also cause referred pain. Sometimes the diagnosis of the source of trouble in toothache at altitude is complicated by referred pain from a blocked ear.

(Although not related to toothache at altitude, it should be noted here that some ulcers of the mouth and lips can become painful in flight if the oxygen mask causes pressure on them or if oxygen is flowing over the area.)

Flying right after dental surgery can be hazardous. Besides general comfort, a number of factors enter into dentists' and flight surgeons' advice to postpone flying for a certain period:

- Variations in barometric pressure can bring about secondary hemorrhage. This can also occur after gum treatment if there is still some active infection present.
- Some patients experience dry socket or loss of blood after extraction.
- The maxillary sinus is sometimes affected.
- Pain and other symptoms occur as late as the fourth post-operative day in some patients.
- Medication given dental patients can compromise aircrew efficiency and safety.

Some experts are of the opinion that clinical experience indicates that flying should be routinely restricted for 48 hours following tooth extraction and that the patient should be re-examined before return to duty.² It is for these reasons that Navy dentists and oral surgeons will recommend grounding of a pilot or aircrewman for 48 hours following a surgical procedure.

Now for a few words on how you can get dental cavities in the first place. Research on the cause of tooth decay is a continuing process. However, there seems to be general agreement that the chief factors are mouth bacteria, food, dental plaque and susceptible tooth surface. Bacteria break down food debris in the

mouth and produce acid. The dental plaque on the surface of the teeth collects the acid and holds it. (Oddly enough, in some persons dental plaque neutralizes the acid.) Then depending on the tooth's susceptibility to decay, the acid works on the tooth until the acids are neutralized by the saliva. One dental authority has stated that acid production in the dental plaque is intermittent rather than continuous, lasting 30 to 45 minutes after meals or snacks containing fermentable carbohydrates.³

Bacteria in the mouth build acid up rapidly after you've eaten carbohydrates. Sticky solid carbohydrates such as candy bars are said to lead to more cavities than those consumed as liquids such as soft drinks. Most dentists will advise you to cut out those sweet between-meal snacks altogether or replace them with raw fruits or vegetables, cheese, eggs, unsweetened milk, nuts or lean luncheon meat. Even if you can't brush after every meal or snack, you can get rid of some of the food debris by rinsing your mouth out with water or swishing it around in your mouth before you swallow it. Dental floss or a toothpick will dislodge bits of food between your teeth.

Granted the irregular schedule inherent in the Navy pilot's and aircrewman's jobs often makes conventional "proper oral hygiene" next to impossible. However, try to brush after meals and snacks or at least rinse out your mouth. Schedule your dental appointments regularly and once you've scheduled them, if at all possible, keep them. And finally, as in all aeromedical matters, good general physical condition and sensible eating and drinking habits are good preventive medicine. Your good health and good oral hygiene, plus the ministrations of a skillful Navy dentist when required, should keep dental trouble at altitude to a minimum.

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Corps News



Brigadier-General E.M. Wansbrough
OBE, MM, ED, CD, MSC, DDS, FICD, FACD

COLONEL COMMANDANT

On 20 February 1970, Brigadier-General Wansbrough was informed by the Chief of Defence Staff, General FR Sharp, DFC, CD, that his tenure of appointment as Colonel Commandant of the Royal Canadian Dental Corps has been extended to 15 January 1971.

The duties of the Colonel Commandant are to:

- foster esprit-de-corps;
- advise Canadian Forces Headquarters as appropriate in his capacity as Colonel Commandant,
- act in an advisory capacity to the Corps Association and unit commanders of the Corps on matters pertaining to the Corps so that uniformity is maintained on such matters as dress and customs;
- advise on the administration and disposition of Corps funds and property;

- advise on Corps charities, organizations and memorials;
- maintain close liaison between the regular and militia units of the Corps;
- keep in touch with allied corps.

BGen Wansbrough has carried out these duties with distinction since his appointment in January 1965. Serving and former members of the Corps are honoured by his re-appointment and look forward with pleasure to the continuation of this association.

CZECHOSLOVAKIAN TRAINING PROGRAM 15 September 1969 - 30 June 1970

by Major AG Taylor, CD, DDS.

Commandant: Colonel LG Craigie

Instructional Staff

Chief Instructor: Major AG Taylor
Colonel WR Thompson
LCol PS Sills
Major DH Charles
Major JVP Chatwin
Major LA Reynolds
Major DH Skinner
Major JN Wright
Capt W Budzinski
Capt JA Pankratz
Dr KF Pownall
MWO M Beauvais
MWO K Lawrence
MWO JA Sadler
WO JG MacDonald

In response to public protests against their ineligibility to practice dentistry in Ontario, sixteen Czechoslovakian dentists were permitted to take a special licencing examination. All sixteen candidates failed the examination which was conducted 14-16 May 1969 by the Royal College of Dental Surgeons of Ontario.

The Ontario Health Department gained the cooperation of the Departments of National Defence and Manpower & Immigration to initiate a retraining program for the immigrant dentists. The Minister of National Defence authorized the CFDS to set up and conduct the program at the Univer-



(L to R) front row: Drs. Iva Bubnik, Milada Schrieber; 2nd row: Drs. Eva Kustra, Vera Veleba, Catherine Antl, Katarine Brodnianski; 3rd row: Drs. Richard Jedzinsky, Ivan Gonda, Milan Hrivnak, Andrej Novovesky; back row: Drs. Adrian Palencar, Oldrich Vtipil, Jan Vavra, Cyril Lacko.

sity of Western Ontario. The Graduate Clinic was made available for this purpose.

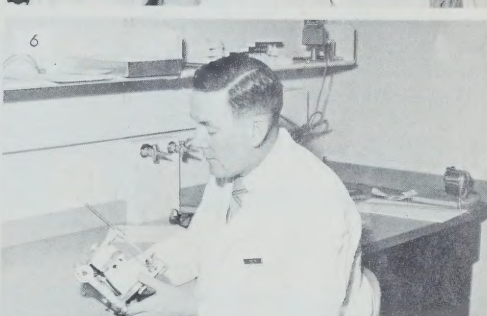
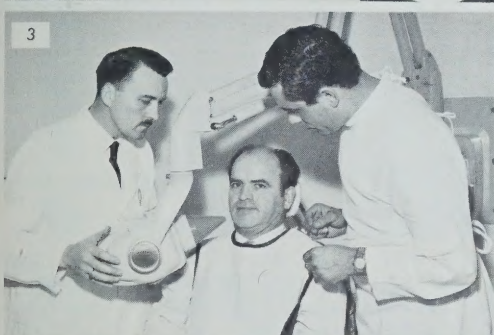
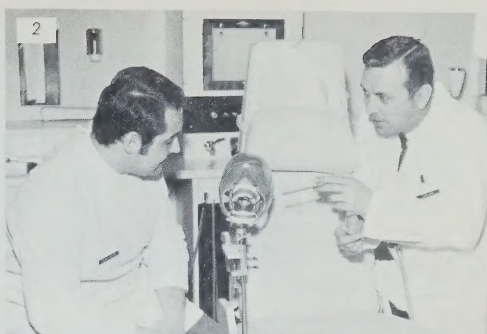
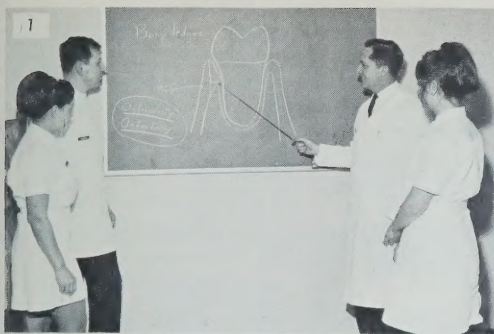
Based on the date of entry into Canada, candidates were selected by the Department of Manpower & Immigration and approved by the Royal College of Dental Surgeons of Ontario. Prior to course commencement each candidate was required to sign a contract with the Ontario Department of Health in which he was obligated to serve three years in one of the communities designated by that department.

The aim of the program is to prepare candidates to practice dentistry successfully in a community which may be isolated and where they may be the sole source of treatment. The course is designed to meet this aim by covering, in the available time, that material which would be of most practical use to successful candidates.

The excellent facilities available at the Faculty of Dentistry, University of Western Ontario and the availability of a well-qualified staff to teach the course are prime factors which make the aim attainable. Another very important factor is that the candidates possess a deep desire to be successful and are very willing to work extremely hard to overcome problems that stand in the way of reaching their goal.

The main problem, especially during the early months of the course, was language. The group attends English classes two hours each week at the university language laboratory where a special forty-hour course was arranged for them. To improve communication in the presence of language difficulties, fullest use is made of films, slides, diagrams and training aids in general. Printed copies of all lectures are provided so that the candidate may give his complete attention during periods of instruction. Due to a signi-

.....The Instructors



(1) Major Wright with a point and (1 to r): Drs. Antl, Palencar and Veleba. (2) Major Taylor (r) and Dr. Jedzinsky, class leader. (3) Dr. Vavra (r), patient and WO MacDonald. (4) Capt Budzinsky (r) and Dr. Kustra with patient. (5) Auxiliary Staff (1 to r): Miss Lindsey Brown, Cpl Tom Cooper, Sgt Jim Atherton, Sgt Gary Albertson and Miss Kitty Heenan. (6) LCol Sills.

ficant improvement in their English since the beginning of the course, the language problem, although still present, has been minimized.

The type of practice in which the candidates were engaged in Czechoslovakia was quite different from general practice in Canada. They worked at polyclinics in group practice where administration was centralized. Under a socialized system they were not concerned with the business side of dentistry so they knew little of these aspects of dental practice. A course

in jurisprudence and practice management was conducted by the secretary of the R.C.D.S. to fulfil this portion of the course.

Most of the materials and procedures formerly employed by the candidates were significantly different. It was therefore necessary to cover every detail concerning all materials and every step in all procedures. Much more than the normal amount of time had to be expended in a good many areas. On the other hand, their background in the basic sciences is very

good, thus saving many hours of instruction time.

From the candidates' point of view, the main problem is to absorb a great amount of material in a relatively short period of time. The prepared lecture notes are of considerable assistance to the candidates in the accomplishment of this task. The notes are arranged in booklets so that they may serve as a ready source of reference material in the early stages of private practice.

The course may be described as being "open-ended". If a candidate is able to meet the standards before the schedule is completed, he may be graduated early. When a candidate demonstrates that he does not possess the potential to accomplish the aim, he is withdrawn from the course. Two unsuccessful candidates were withdrawn in January.

At this point, approaching completion of the third quarter of the course, the class continues to work very hard and progress is good. It is anticipated that successful candidates will make a significant contribution to dentistry in Ontario by bringing a dental service to areas where treatment is not now available.

EIGHTH ANNUAL RCDC BONSPIEL

by WO PD Peterson

Once again, from coast to coast, Dental types ventured to the hallowed ice of Base Borden for the eighth RCDC bonspiel. Thirty-four rinks representing the Canadian based dental units made the bonspiel the biggest and best yet.

The pre-game festivities supplied added

impetus to the avid participants. The attire was unique: MWO Bob Goodwin's team wore "Gay Nineties" outfits complete with handlebar moustaches and sideburns; Cpl John Clint's (pardon me...MacClint's...) team wore kilts which seemed to attract the female viewing audience, and the CDFS School Lab Tech team donned Mod Laboratory Technician outfits.

The curling was great and the draw saw keen competition at all levels.

The final games were viewed by a standing-room-only crowd. The winners of "A" Event and the Wansbrough Trophy were Cpl John MacClint's rink comprised of Sgt Don MacGardner, Cpl Pete MacNadeau and Sgt Ron MacDanyluck. The runners-up were the 13 Dent Unit team skipped by Capt Bill Kearns with WO Clarke vice, Cpl Griffiths second and MWO Jones, lead.

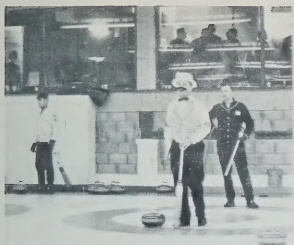
The winners of the RCDC Officers Trophy in "B" Event were a 12 Dent Unit team: Sgt Rene Tremblay, LCol Donely, Cpl Why-nott and Cpl Solomon. Runners-up were the CFDS School team of MWO Bob Goodwin, MWO Laurence, WO Reid and Cpl Walker. The Warrant Officers and Senior NCOs Trophy in "C" Event was captured by the Bonspiel Chairman, Capt Dale Graham and his rink: MWO Earle Mazerall, Major Harold Brogan and WO Pete Peterson. Runners-up in the event were the 11 Dent Unit team of WO Shand, MWO McFadden, MWO McHugh and Capt Rix.

On Saturday night the banquet was held at Building T-70 after which Capt Dale Graham presented prizes to the winners and condolences to the non-winners. The magic ingredients of sociality and sporty competition went hand-in-hand to nurture a strong *esprit-de-corps*.

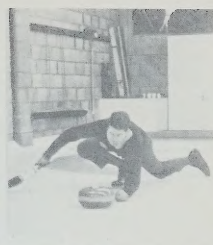
BGEN EM WANSBROUGH, OBE MM ED CD
COLONEL COMMANDANT RCDC

FOR COLONEL COMMANDANT, OFFICERS, WARRANT OFFICERS, NON-COMMISSIONED OFFICERS AND MEN OF THE ROYAL CANADIAN DENTAL CORPS FROM MINISTER OF NATIONAL DEFENCE. MY VERY BEST WISHES TO ALL RANKS OF THE RCDC ON THE 55TH BIRTHDAY OF YOUR CORPS, 20 APRIL 1970.

LEO CADIEUX, MND.



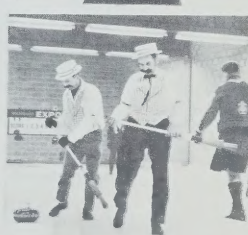
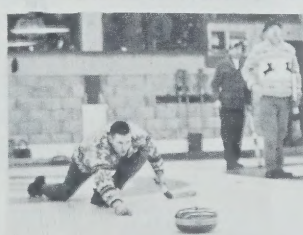
A EVENT



B EVENT



C EVENT



27-28
FEBRUARY
1970

The CFDS School

by WO PD Peterson

Postings

Unification has made another change within the Forces. Last month Sgt Don Gardner, who spent eight years at the CFDSS as a clerk, was posted to the Cdn Forces School of Intelligence still wearing his RCDC flashes.

Sgt Donna Hollins, after being posted from CFB Cold Lake in June 1969, finally arrived at the school in January 1970. It only seems that the travelling time was long because she spent six months at CFS Val D'Or.... so she says.

Retirement



After sixteen and a half years with the RCDC, MWO Hans Franzgrote has returned to civilian life. A letter received from Hans recently indicated the joy he has discovered in civilian life. He sends his best wishes to all the friends he has left behind in the Corps.

Visits

Lt Col G Kuttas of the US Army Dental Corps, Surgeon-General's Office, visited the School from 26 February to 1 March to observe RCDC training of technical dental therapists.

Dr JW Neilson, Dean of Dentistry at the University of Manitoba was a guest lecturer on Periodontics during the last few days of February.

Mr. Sykes, Principal of George Brown College in Toronto, accompanied by Dr. KF Pownall, Secretary of the Royal College of Dental Surgeons of Ontario, visited the school on 4 March to observe training of auxiliary personnel.

LCol PS Sills, Chief Instructor and Major HW Brogan, Base Dental Officer, CFB Borden, made a training liaison visit to TCHQ Winnipeg 16-20 March.

During March: Diploma and Dental Public Health class from the University of Toronto on a one-day information tour ... Toronto Academy of Dentistry and Waterloo-Wellington Dental Society held one-day seminars at the school.

Sports

Base Borden Officers' Mess were the final winners in the inter-mess hockey league with such illustrious players from the CFDSS as Cpts DA Devine, DG Wilson and GH Pinsonneault. The runners-up, Base Borden Sgts' Mess team included Sgt Ron Danyluck. Special praise goes to Capt Wilson, top "goal getter" in the league.

1 Dental Unit

Personnel

Recently the lab technicians of the unit joined the Ottawa Dental Technicians Study Group. Prior to joining, the group was almost defunct. At the first meeting they attended, Sgt Al Pink was elected President and Sgt CS Brown and Cpl Jim Likins were elected to the Executive...

just goes to show what an infusion of Forces blood can do to an organization.

Major Leo Bourget spoke to the Study Group on the design of partial dentures using guiding planes, I-bars and mesial rests. Major Bourget also spoke to the French division of the Ottawa Dentists Study Group and was warmly received.

Personnel

BGen BP Kearney left for three weeks in Germany on 22 March to discuss the forthcoming amalgamation of 4 Fd Dent Coy and 35 Fd Dent Unit ... Col GR Covey and LCol LA Richardson attended the Mid-Winter Dental Meeting in Chicago 15 to 18 February ... LCol JC Brick was away to Barbadoes, Jamaica and Trinidad with the Canadian Rifle Team from 17 February to 9 March ... Miss Carol Van Tassell left on a leave of absence during February and is being replaced by Mrs. Bunny Reid.

Sports

Curling has been the sport of the year

in this Division. A team of MWO T Sullivan skip, LCol LA Richardson vice, LCol JW Fletcher second and Sgt PJ Dumas lead, won a trophy and prizes for taking "B" Event in the CFHQ Physical Fitness Curling. The same team, with the exception of LCol Fletcher, were three game and prize winners in the CFHQ Wind-Up Bonspiel. MWO Sullivan, WO MA James and Sgt Dumas were the winners of "D" Event in the CFHQ Sgts' Mess Bonspiel. Tommy Sullivan has been a winner in two other bonspiels in the Ottawa area ... a very busy man! Crying towels "won" in the RCDC Bonspiel at Borden consoled the team of BGen Kearney, Col Covey, LCol Richardson and Dr JW Neilson. -

15 Dental Unit

by MWO AF Davison, CD

Personnel

A bird's eye glance at 1970 indicates that as usual at this time of year all sorts of changes are "in the making" within the Corps including postings, promotions and retirements. It certainly appears to be a year of change and this unit is having its share. Postings have been filtering in and it is encouraging to realize that some of the vacant positions in 15 Dental Unit will be filled.

Accommodation

In the not too distant future it is expected that the Headquarters of this unit will be moved from its long-standing location on Atwater Street in Montreal to Mobile Command Headquarters at St Hubert. It is also expected that the supply section will eventually be moved from Longue Pointe to St Hubert.

Sports

Major RM MacDonald was a member of the team winning the high aggregate trophy in the Men's League at the St Hubert Curling

Club ... Capt JJ Campbell has participated as a fervent member of the ski patrol in Valcartier ... Capt YJA Gagnon was anchor man on the CFS Mont Apica ski team which participated in the Mobile Command ski meets 9 to 13 March at Valcartier.

Special Events

Several of the dental officers in the Montreal area gathered in the Atwater Mess on 26 March to honour Dr VHT Jekyll at a farewell luncheon. For several years Dr Jekyll has worked on a "per diem" basis for the RCDC at CFS Lac St Denis. He has had a long affiliation with the Armed Forces, having served as a gunner in World War I. Possibly unknown by the "younger generation" in the Corps, he has our best wishes for a happy retirement.

Recently the personnel at HQ 15 Dental Unit received a postcard from Colonel CM Cornish post-marked "Tahiti". It was nice to learn that he and Mrs Cornish were enjoying their long-planned retirement trip to the South Pacific.

There are currently 47,006 servicemen and their dependants on thirty-five bases or stations receiving the benefits of fluoridated drinking water. In addition there are 2,769 servicemen and their dependants on six bases or stations receiving the benefits of naturally fluoridated drinking water. These figures do not include those who receive the benefits of fluoride water from civilian municipal water supplies.

35 Field Dental Unit

by WO RJ Lowery, CD

Visits

BGen BP Kearney visited the unit 24 and 25 March. After a short holiday in Spain he continued his visit to dental installations at SHAPE and AFCEM 5 to 7 April.

Major McCallum and Sgt Giroux from SHAPE were in London 23 February to 6 March to provide dental treatment for the personnel at CDLS. Sgt McDonald preceded them to deliver supplies and check out equipment.

Training

Capt Montgomery and Stansfield attended the General Dentistry Training Seminar at the US Army Hospital Frankfurt on 20 and 21 March.

Sports

The first annual hockey game between 1

Wing Lahr and 4 Wing Baden Soellingen was played 20 February. In spite of the inspired goal tending of Sgt Dan (The Gumper) Hardy, 4 Wing managed to sneak a win. An appropriate trophy was awarded the losing team.

Cpl Tom Girdlestone, captain of the 4 Wing Skeet Team, won the High Gun Trophy against the Karlsruhe Rod and Gun Club with a score of 95/100.

Capt Jackson, Capt MacKenzie and Sgt McDonald participated in the Second Annual International Bonspiel held at Lahr from 18 to 22 March with ninety-six rinks participating from Canada, Switzerland, Sweden, Germany and Holland as well as 1 and 4 Wings.

4 Field Dental Company

by Sgt P Fox, CD

RCDC Bonspiel - Europe

Major DG Jones, drawmaster, with able assistance from Sgt WL Wylie, Sgt RS Black and Sgt TR Kukurudziak, organized the bonspiel and banquet, held 24 January. There were twelve teams competing, seven from 4 Fd Dent Coy and five from 35 Fd Dent Unit. The winners were, as you may have guessed, 4 Fd Dent Coy. Not only did they take the overall championship but also won all three prizes. The first prize went to Capt WA Gray's team of Sgt P Fox, WO JV Minnelli and Sgt RA Garnhum. Second

prize went to the team of Capt RJ Shirkey, Capt RM Depledge, Sgt TR Kukurudziak and Pte RB (Slim) Bamford. Third prize went to LCol GE Windsor and his rink of Sgt LI MacLean, Cpl RM (Smiling) Haiplik and Mrs Sheila (The Broom) Burrows.



The front end of the horse returned to 4 Fd Dent Coy where it will remain for all to see until disbandment and then in all probability will be "married-up" with the other half in Lahr.

14 Dental Unit

by WO JM Roberts, CD

Course Completed



Major CL Gullekson receives his completion certificate from Capt WC Wohlfarth, Jr, DC, USN (right), Commanding Officer, Naval Dental School, National Naval Medical Center, Bethesda, Maryland. Capt FN Ellis, DC, USN (left), Director of Educational Programs and Capt WA Monroe, Jr, DC, USN, Director of Clinical Programs and Executive Officer, attended the ceremony.

Major Gullekson attended the Naval Dental School's course in fixed partial dentures from 9 February to 27 March.

Going to the Dogs

Sgt McRae has for some time been a keen dog show follower and has shown his animals at many U.S. and Canadian events. In Winnipeg recently, one of his dogs placed in the "Best of Breed", first in "Working Class" and was runner-up in the "Best of Show". Heath was recently inundated with multi Samoyed offspring and now has fifteen dogs.

Sports

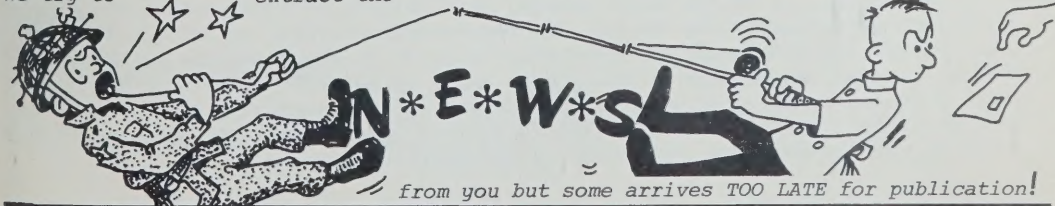
The annual 14 Dent Unit Bonspiel was held at the Westwin Curling Club, CFB Winnipeg on Saturday 7 February. Eight rinks entered the competition for the Jackson Trophy which was captured by WO Roberts and his rink comprised of Sgt McKinnon, Sgt Petersen and Lt Vandervaart. The curling was attended by representatives of all clinics in the unit and by some of the DOTP personnel



from the University of Manitoba. A social evening with dinner made an enjoyable conclusion to the day's activities.

Three rinks flew to Borden for the 8th Annual RCDC Bonspiel and on return reported that it was the best event ever, even though they brought back very few trophies to prove it. Meanwhile, back at the ranch, Sgt Norm Petersen and Capt John Cowan, not qualified for the Borden events, entered a rink in the Surgeon-General's bonspiel in Winnipeg 27-28 February and ended up third in the "A" Event. They were heard to remark that if the other two team members had been Dentals they would have gone all the way!

We try to extract the



13 Dental Unit

by Sgt ES Beattie, CD

Preventive Dentistry

Major JVP Chatwin visited the dental clinic at CFB Petawawa on 7-8 January. He gave an informal lecture with slides on the preventive dentistry program to clinic personnel. He later briefed the Deputy Base Commander on the objectives of the program. Photos of the Deputy Base Commander receiving treatment were included in the Base Petawawa weekly newspaper. The outcome of this visit resulted in a sharp increase in the achievements of the preventive dentistry program at CFB Petawawa.

Clinics

Working conditions have improved at the lab at Downsview where an air-conditioning unit has recently been installed. Sgt Pete Sprathoff may now prefer not to go paddling his canoe up some mosquito and black fly infested stream in an effort to get away from it all.

After nearly ten years of intermittent negotiations, the new dental clinic at CFB North Bay is a reality. The layout is efficient and spacious. There is now room for the therapist, expected to arrive this summer.

Personnel

The birth of his first son, James Gordon on 15 January must have been the medication required to put Cpl WR McIntosh back on his feet.

At CFS Moosonee, Cpl JE Thomson is preparing for the local winter carnival by growing a beard. Capt BW Yates may need extra time in Moosonee in order to participate in these activities. He claims that he is not yet old enough to shave.

Sports

Capt RG Kerr starred at centre to assist the Downsview basketball team to a second place finish in the Zone 5 playdowns.

In curling, Capt CW Kearns was eliminated in an exciting final game in the Zone 4 CFHQ Bonspiel at Ottawa. He achieved the same distinction when he skipped his rink of WO JE Clarke (lead), Cpl JW Griffiths (second) and MWO RK Jones (third) to a runners-up position in the "A" division of the Dental Corps Bonspiel at CFB Borden.

Dental Detachment Cyprus

Rotation

Capt Hart, Sgt Hope and Cpl McDonald have departed. Capt Erskine, Sgt Kerr and Cpl Mitrikas are preparing to assess 1 RCR's dental problems now rotation has been completed.

Visits

Acquaintances with personnel and exchanges of ideas and techniques have resulted from recent visits to the Austrian, British and Danish dental facilities.

Fluoride incorporated into the tooth during its formation may exert its action by reducing the solubility of the tooth mineral in a variety of ways and possibly by changing the morphology of the tooth. The post-eruptive effect of fluoride may be exerted through its incorporation into early cavities by the influence on enamel solubility of fluoride present in the plaque acids by possible effects on post-eruptive enamel maturation or recalcification and by the inhibition of acid production in plaque. It seems likely that it is this unique combination of properties which gives this element its importance in preventive dentistry.

11 Dental Unit

by MWO RD McHugh, CD

Retirements



Left:

WO Gerry (The Shag
Harbour Kid) Shand

Centre:

LCol RB (Bill) Jackson

Right:

WO RA (Bob) Neill

On 25 March the staff of the Cold Lake detachment gathered to bid farewell to four retiring staff members. LCol RB Jackson was presented with an engraved gun case. He has been invited to return to Cold Lake to defend his "Best Buck" title in the fall of this year. Major Brian Andrews was next to receive his good-byes. He is leaving the Corps to hang up his shingle in Port Alberni BC. The "flying dentist" will be missed for his fine sense of humour and his varied stories on flying, fishing and hunting. WO Gerry Shand received a tearful good-bye after ten years in Cold Lake. Gerry has not decided what he will do on retirement but will stay in the Cold Lake area for the time being. They say Gerry has a small fortune hidden away and may start a "loan agency" on his own. WO Bob Neill also received his farewell. Bob is planning to move his family to Courtney BC and the fresh sea breezes.

Hospital

WO Ken Libby, CFB Calgary, was admitted to Calgary Foothills Hospital

1 January, released 13 January for a month's sick leave and returned to duty 23 February.

Sports

Everything has returned to normal after this unit's invasion of the curling lanes at Borden. The two 11 Dent Unit teams did very well. WO Gerry Shand's entry from Cold Lake were runners-up in the "C" Event and Sgt Dick Walker's rink from our HQ element in Edmonton were quarter-finalists in the "A" Event. All in all, we were very pleased with our efforts and truly enjoyed ourselves. Sgt Walker had better success on his return to Edmonton, entering a rink in the Annual Griesbach Invitational Bonspiel held 26 to 29 March and winning the "C" Event. Major Bill Collier was at third, Pte Wayne Cudmore at second and Sgt Mel Wilson of CFB Edmonton threw the lead rocks.

MWO Jack Fraser entered a team in the annual Palm 'Spiel held on his home grounds at Cold Lake and was runner-up in the "A" Event.

Dentistry

The Canadian Army Dental Corps was disbanded on 30 August 1939 and re-organized as The Canadian Dental Corps. On 15 January 1947 the Title "Royal" was given to the Corps.

Professional Training

United States Naval Dental School, Bethesda, Maryland

Major JJB Houde ... Complete Dentures ... 20-27 April

Major AN Swanzey ... Periodontia ... 4-11 May

Major PR McQueen ... Periodontia ... 4 May (7 weeks)

615 USAF Dispensary, Ent Air Force Base, Colorado Springs

Major AL Kelland ... Oral Surgery ... 6-17 April

Canadian Forces Training

Canadian Forces Dental Services School, CFB Borden

Dental Laboratory Technician PL6 Course, 11 March - 28 April

Sgt MD Crockett, Sgt HE Ayerst, Sgt ML Allen, Cpl PD Whynott, Sgt JD Cormie,
Cpl CS Heather, Cpl BF Hannah, Cpl GN Challenger, Sgt JR Ritchie, Sgt RS Black,
Cpl JM White, Sgt RE Todd.

Dental Clinical Assistant PL6 Course, 1 April - 1 May

Sgt(W) FB Putman, Cpl JC Hughes, Cpl HJ MacGillivray, Sgt JM McLean, Sgt NL
Highfield, Sgt LH Pion, Cpl(W) MY Fletcher, Sgt(W) MT Lapointe, Sgt H Kalmet,
Cpl JE Thompson, Cpl RB Scheer, Cpl(W) VH Swiatkevich, Cpl RM Haiplik, Cpl
JGJ Labrosse, Sgt RK James, Cpl BL Mackie.

Canadian Forces Staff School, Toronto

Junior Staff Officers Course, 5 January - 26 March

Lt RD Townshend

Canadian Forces School of Management, Montreal

Advanced Management Course, 2-26 March

Major JVP Chatwin

Canadian Forces School of Instructional Technique, CFB Clinton

Instructional Technique 1 Course, 5-21 January

Capt G Pinsonneault, Capt D Pettigrew, WO PD Peterson, Sgt D Mason

Instructional Technique 2 Course, 5-16 January

MWO MO McDonald

Visual Aids Course, 2-6 March

Sgt CW Smith

Training with Industry

Installation, Maintenance and Repair of Ritter Co. Equipment, 9-13 March

Ritter Equipment Co., Rochester, N.Y.

Cpl JLA Violette

Ticonium Casting, 18-22 May

Ticonium Co., Albany, N.Y.

Sgt DT Langford

Welcome to the Dental Services

A cordial welcome is extended to Mrs. S. Heath, Mrs "Bunny" Reid and Miss G. Andrusniak.

Promotions

To: LCol ... TD Cobb; MWO ... FJ Reid, SD Posyluzny; Sgt ... (W) SJ Kirley, JH Thorburn, (W) JA Patterson; Cpl ... EAJ Morin, DP Kurbis.

Retirements and Releases

Farewell and good luck to LCol RB Jackson, Major RB Andrews, MWO HE Franzgrote, WO G Shand, WO RA Neill, Mrs SJ Morrison, Cpl DR Christal, O/C HR Young, and Dr VHJ Jekyll (ceased per diem duties).

Vital Statistics

Marriages

Congratulations and many years of happiness to Miss IJ Colter, now Mrs JM MacLean ... Miss Donna Jane Holding, now Mrs (Capt) EG Schroeter.

Births

Congratulations and may the Family Allowance cheques arrive on time.

Sons: MWO and Mrs JW Hutchinson ... Cpl and Mrs WR McIntosh ... Sgt and Mrs JRY Gratton, Sgt and Mrs RE Todd, Cpl and Mrs JH MacGillivray, Sgt and Mrs GK MacDonald, Cpl and Mrs JDF Scott, Cpl and Mrs JE Thomson (adopted).

Daughters: Capt and Mrs JJ Campbell, Pte and Mrs KLM Davis, Capt and Mrs DE Watson, Cpl and Mrs RB Scheer, Capt and Mrs RM Depledge, Capt and Mrs WA Gray, Capt and Mrs HM Amos.

Condolences

Sincere sympathy is extended to Sgt(W) GAMJ Ridley on the loss of her husband and to Cpl JA Muir, Major WK Dickie and Sgt RD Veinot on the loss of their fathers.

In Memoriam

With regret we announce the passing of WO 2 William Ralph Highgason, CD, in Ottawa on 17 January 1970. WO 2 Highgason was born in Brandon, Man., on 24 July 1908, enlisted in the Corps in Winnipeg in October 1942 and served as a dental assistant and storeman clerk in Canada and Europe until his retirement in January 1961. He is survived by his wife Alveria and daughter Eve Virginia.

FACULTY OF DENTISTRY
SECRETARY

MAY 12 1970

ANSWERED

FILE



CFB Trenton Detachment, 13 Dental Unit, January 1970

(Left to right). Front row: Capt PP Psaila, Major GS Zwicker, LCol WW Anglin (Base Dental Officer), Capt DK MacKenzie. Center row: MWO VR Kidd, MWO JE Raymond, Miss MAC Louckes, Mrs FL Mitts, Cpl RH Stenabaugh, Sgt EL Schell. Back row: MWO RF Matheson, Mrs J Macklin, Pte NL Rivers, Cpl BA Gilkes, Cpl GM Anderson. (Missing from photo: Capt DB Smith and Cpl I Linton).

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The CFDS Quarterly



VOLUME 11 · NUMBER 2 · JULY 1970

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4 Field Dental Company

Sergeant CWJ Powell, CD

35 Field Dental Unit

Sergeant MD Longford

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Chief Warrant Officer

PM Griffith-Jones, CD

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Cover Photo

BGen BP Kearney retires ...
BGen GC Evans appointed DGDS
(see Corps News)

The CFDS Quarterly may be subscribed for at
\$4.00 per year by writing to:

Director General of Dental Services,
Canadian Forces Headquarters,
Department of National Defence,
Ottawa 4, Ontario, Canada.

LETTERS TO THE EDITOR

Dear Sir:

In an article by Major JVP Chatwin (Vol 10 No 4, Jan 70, p.4), the following text appeared:

"This is a time-consuming procedure and the World Health Organization (WHO), moving into the computer age, developed an International Dental Epidemiological Method Series to simplify surveys. The survey used by the Corps in this study is a part of that series. The WHO points out "..... instead of recording in detail the status of all teeth or regions of the mouth, only the most severe level to which the disease has advanced anywhere in the mouth is recorded. Thus, if periodontal disease has advanced to the degree that the subject has one or more periodontal pockets he is classified as being in that disease severity group. This provides direct information that the subject is in need of treatment for periodontal pockets, and the relative number of population in the various severity categories may be used to estimate over-all treatment needs."

This text refers to the first draft of a manual which has only recently been produced in document form by WHO with many fundamental changes. The methods proposed in the draft manual were tested in a number of countries and several of these methods are still being tested by WHO to assess their suitability for international use at a later date. The official document is entitled *Basic Oral Health Survey Methods* and is available from the Dental Health Unit, WHO, Geneva, on request. The manual has been designed to maintain as much comparability as possible with basic descriptive surveys which have been performed in the past in a number of countries using the methods defined in the WHO Technical Report Series Publication No. 242 - *Standardization of Reporting of Dental Diseases and Conditions*. There are, however, a number of changes which were made with the major objective of providing the simplest method compatible with the provision of data adequate for planning of public dental health services. To allow for situations of varying complexity, a number of elective measurements of oral diseases and conditions are included, as well as those measurements recommended as basic or minimum requirements.

Associated with this manual is an offer of assistance by the Dental Health Unit, both in pre-survey planning and in data summary and analysis according to a standard program. In line with the provision for elective measurements, assistance in data summary and analysis may be provided following negotiation for elective as well as basic measurements and where necessary with variations in the standard tables provided. Survey forms may also be provided either singly for local reproduction or where desirable, in bulk. The mark sense cards reproduced in Major Chatwin's article are no longer available, either for the survey method proposed in the draft manual or for that in the final document.

The title *International Dental Epidemiological Methods Series* has been dropped as has the proposed numbering of manuals. To date, the other manual available on request from the Dental Health Unit, Geneva, is the *International Classification of Diseases - Application to Dentistry and Stomatology (ICD-DA)*. The ICD-DA provides a numerical classification comprising five digits for oral diseases and conditions. It is of special importance in standardizing records in oral pathology and diagnostic departments and it is hoped that it will provide a means for collecting epidemiological data on rarer oral conditions as use of the system becomes widespread.

Dr. Vl. Rudko
Chief, Dental Health
World Health Organization

1211 Geneva 27, Switzerland
11 June 1970

UNNA WERL SOEST FORT CHAMBLEY
 «THE END OF AN ERA» FORT ST. LOUIS FORT YORK
 FORT VICTORIA FORT HENRY
 Mohne-see

4 FIELD DENTAL COMPANY

ISERLOHN HEMER FORT MACLEOD
 FORT QU'APPELLE FORT PRINCE OF WALES
 FORT BEAUSEJOUR

MAJOR H. GRIESBACH, CD, DDS.



An article by Colonel GC Evans dealing with the history of 4 Field Dental Company was published in The Quarterly, Vol. 6, No. 4, January 1966. This report updates the unit history to its' disbandment as a result of the reorganization of the Canadian Forces in Europe.

Commanding Officers

In August 1965, LCol LA Richardson arrived to replace LCol G MacDougall as Commanding Officer and in July 1968 LCol GE Windsor took over command, blissfully unaware that he would go into the annals of the RCDC as the last Commanding Officer of 4 Field Dental Company. (see photo)

Field Training

June and Sennelager have been synonymous in the language of 4 Brigade and 4 Field Dental Company. In the 1966, 1967 and 1968 concentrations, a laboratory, the HQ and the QM were set up in the field and mobile clinics were attached to major units. In 1969, 4 Field Dental Company concentrated as a unit. Everyone, including base dental personnel lived in the field for at least a week, to become familiar with field equipment and to qualify on personal weapons. For Sennelager 1970, from 26 June to 17 July, two dental officers came from 35 Field Dental Unit to run the show, assisted by a sergeant and two corporals of 4 Field Dental Company. Again, the dental sections did not accompany their units but concentrated with the field ambulance.

The brigade fall exercises in the Soltau training area in September of each year gave dental personnel further field experience with dental detachments participating, supported by HQ and a laboratory section.

In October 1966, HQ and five dental detachments took part in Exercise CHECKMATE. In September 1967, the unit moved straight from Soltau to the British Army of the Rhine exercise ROB ROY in the Hannover-Kassel area. 2 British Division exercise KEYSTONE in October and November 1968 saw HQ, five dental detachments and a laboratory section in the field. The field training exercise MARSHMALLOW in October 1969 required twenty dental personnel.

Professional Training

4 Field Dental Company continued to sponsor Dental Officers' Professional Meetings with guests from the British and United States Dental Services regularly attending. The meetings took the form of seminars based on presentations by members of the group or on professional films available from several sources. On four occasions, US Army dental officers in Kassel and Royal Army Dental Corps officers at the British Military Hospital in Iserlohn were hosts at the meetings.

During this period, a Dental NCOs Study Group held meetings of a similar nature.

Fortunate indeed were the dental officers who had the opportunity to attend one of the excellent professional training programs of the US Dental Services in Germany. They attended US Army Europe annual Dental Training Conferences in Garmisch, US Army Medical Command Europe General Dentistry Training Seminars in Frankfurt, Nurnberg and Landstuhl, and a US Air Force Europe Dental Training Conference in Wiesbaden.

Preventive Dentistry Program

This program was initiated by March 1968, and in February 1969 self-preparation was introduced. It soon became apparent that the necessary cooperation of every brigade unit could not be taken for granted, especially in field units with full and continuous training schedules. However, this difficulty was overcome early in the program.

Dental Care for Dependants

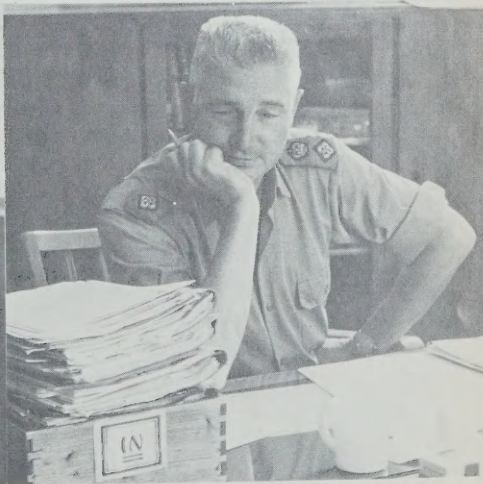
In 1965, 4 Canadian Infantry Brigade Group finally gained the support of Canadian Forces Headquarters for a plan for dependants' dental care. Approval followed quickly and by January 1966 work had been started to convert two-bedroom apartment-type married quarters in Soest, Werl and Hemer to dental clinics, increasing the total number of

static clinics in 4 Field Dental Company to ten. Three Canadian civilian dental nurses were hired. The clinic in Soest opened in February 1966, those in Hemer and Werl in March. From the first day to the last, the demand for dental care by dependants was heavy.

Sports

The golfing and curling seasons usually culminated in a confrontation with "those people down south" (35 Field Dental Unit), and it stands to reason that to 4 Field Dental Company personnel the horse's posterior has always been the south end of the trophy. The golf course in Fort St Louis Annex and the curling rink in Fort Chambly were not entirely shunned by the unit and it was not by accident that LCol Windsor became President of the Maple Leaf Curling Club less than a month after his arrival in Germany and remained President for the following season. The senior NCOs of 4 Field Dental Company had their hours of glory when on a unit sports day in Sennelager they walked away with all the prizes. They had devised a scoring system which only they were able to interpret.

Contrivance was not necessary for Capt AN Swanzey to win the British Army Light Heavyweight Judo Championship in Colchester, England on 30 March 1968.



The Axe Falls

The decision of the Canadian government to reorganize the Canadian Forces in Europe and to move the reformed 4 Canadian Mechanized Brigade Group from Westphalia to Lahr in the Black Forest spelled the end of 4 Field Dental Company. It meant that in the summer of 1970, most personnel would return to Canada, some would go to Lahr and a few would remain in Soest until 1971. Eight of the ten dental clinics were to close between June and October 1970 with the clinics in Soest and Fort Chambly remaining in operation until June 1971.

Clinical equipment which can be used by 35 Field Dental Unit will be shipped to Lahr. Field equipment including clinic vans, a laboratory van, trailers with generators and a quarter-ton truck will also go to 35 Field Dental Unit.

A considerable quantity of dental

equipment will remain in the Soest area for disposal action. The Royal Army Dental Corps expressed interest in taking over six clinics with certain major items of dental equipment left *in situ*. Equipment of North American manufacture, the value and usefulness of which warrants crating and shipping, will be returned to Canada.

The Royal Canadian Dental Corps flag has been lowered for the last time in northern Germany. Nineteen years of dental service in Hannover, Soest, Werl and Hemer come to an end. The massive shuffle of approximately 14,000 service members and their dependants returning to Canada and moving to other parts of West Germany eclipses the move and masks the emotions of the members of 4 Field Dental Company involved in the exodus.

*"What custom has endeared,
we part with sadly....."*

ADDENDUM

The following names completes the list of RCDC personnel who have served with 4 Field Dental Company over the years
(see The Quarterly, Volume 6, Number 4, January 1966)

1966

Major MN Deyette
Capt H Griesbach
Capt AN Swanzy
Capt GW Hill
WO2 WA Bennett
SSgt J Dion
SSgt GF Keogh
Sgt G Sapergia
Cpl GG Albertson
Cpl JAN Audet
Cpl DS Smith
Cpl WE Tweed

1967

Capt JRC Bellerose
Capt RM Depledge
Capt GR Nye
Capt HS Wood
Capt RJ Shirkey
WO2 EMB Everett
SSgt JV Minnelli
Sgt P Fox
Sgt WL Wylie
Cpl AM Burns
Cpl JG Labrosse

1968

LCol GE Windsor
Capt JPDC Grise
Capt GD Petrie
MWO JW Hutchinson
Sgt A Schuh
Cpl RS Black
Cpl JMM Arbour

1969

Major DG Jones
Capt EF Foley
Capt WA Gray
Capt DC Morgan
WO JD Hossdorf
Sgt LI MacLean
Sgt RA Garnhum
Sgt MJ Hall
Sgt WB Looker
Cpl TR Kukurudziak
Cpl MJC Michiels
Cpl RM Haiplik
Cpl MJ Craig
Cpl JJ Vasek
Pte GW Bowman
Pte GR Lamontagne



RETENTION CYSTS

MAJOR G. S. ZWICKER, BSc, DDS.



The retention cyst, a relatively common lesion, can occur practically anywhere within the oral cavity. The anterior one-half of the hard palate is the only exception as this area is devoid of salivary glands.¹

The two lesions to be discussed in this brief article, and their definitions², are:

Mucocele: a cystic lesion with accumulated mucus secretion from submucosal gland origin; and

Ranula: a cystic lesion beneath the tongue, due to obstruction and dilatation of the duct of the sublingual; less commonly the submandibular or an accessory mucus gland. The condition is frequently complicated by rupture.

PATHOGENESIS

A mucocele is traumatic in origin, e.g., traumatic occlusion, self-inflicted bite, *et cetera*. As a result, a duct becomes obstructed and increased pressure leads to perforation of the duct and secretions enter the surrounding tissue.

A ranula is also thought to be of similar origin; something causes a duct defect. It has also been reported that it might be of congenital origin.³

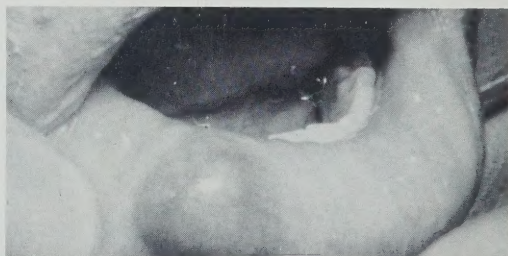
GROSS APPEARANCE

Mucocele. These lesions, which occur at any age, are commonly found on the inner surface of the lower lip, angle of the mouth, buccal mucosa and anterior aspect of the tongue. Rarely do they occur on the palate but may be seen in conjunction with nicotine stomatitis.⁴ They appear as a superficial lesion, a

round to oval, circumscribed vesicle up to 1cm. in diameter. They have a bluish translucency and the mucinous content gives them a fluctuant characteristic. They often resemble an angioma.⁶

Ranula. These lesions, usually seen in adults, occur in the floor of the mouth, associated most frequently with the sublingual gland (Bartholin's duct), although they may involve the duct (Wharton's) of the submandibular gland. The size of the lesion varies and actual displacement of the floor of the mouth and tongue can occur. It appears as a raised, circumscribed lesion up to 3cm. in diameter. It has a bluish translucency, fluctuates, and the contents are similar to that of the mucocele.

Both lesions are normally painless and discovery usually follows the displacement of tissues or post-traumatic comp-



Mucocele - Lip



Ranula - Floor of Mouth

lications, e.g., biting leading to rupture.

MICROSCOPIC APPEARANCE

The basic features indicate that these lesions are not true cysts. The "cystic" cavity is a cavity in connective tissue and submucosa, which causes the mucosa to be elevated and the epithelium to be thinned. The wall consists of a lining of compressed fibrous connective tissue and fibroblasts. In some cases the basic content of the wall may be granulation tissue. In any event, the lesions exhibit infiltration by polymorphonuclear leukocytes, plasma cells and lymphocytes.⁵

Mucocele. The cyst lining consists of submucosal fibrous connective tissue or granulation tissue, along with remnants of cuboidal, ductal or columnar mucus secreting cells.

The mucus may contain fibroblasts with lymphocytes, plasma cells, histiocytes, neutrophils and phagocytized mucus. Submucosal gland lobules are also present with chronic interstitial inflammation with foci of mucus collections. These can be mistaken for cystic mucoepidermoid tumors because they may contain zones of squamous metaplasia in dilated glands.⁶

Ranula. The cystic lining consists of reactive granulation tissue and the mucus content shows a scattering of degenerating cells. The surrounding glandular tissue is the site of an interstitial inflammation with polymorphonuclear leukocytes, lymphocytes and plasma cells present.

Initially the mucus accumulates in the tissue; anastomosis results in a central mucus-filled cavity.

TREATMENT AND PROGNOSIS

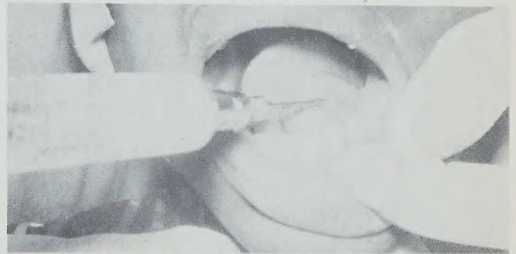
Mucocele. Complete excision is the only treatment which can prevent recurrence. Simple incisional measures will simply allow the contents to escape and upon healing of the defect, the lesion will recur.

A wide elliptical incision is made around the lesion. The cystic sac is

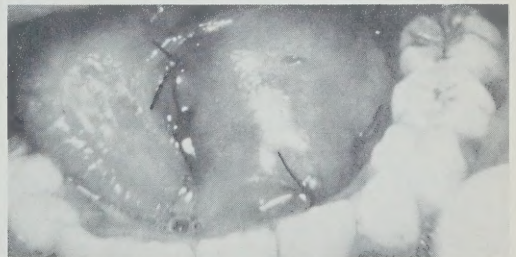
then grasped with Allis forceps, tension applied and sharp dissection into the underlying tissues to a depth which will facilitate removal of the gland is carried out. In lip lesions the incision should conform with the lines of tension of the lip itself. Superficial sutures are usually adequate. Recurrence is rare providing the involved lobules of the submucosal gland are also excised.⁷

Ranula. Most operators prefer to partially excise or marsupialize this lesion, due to its size and location. However, once the lesion is incised, the fluid escapes and the cyst is difficult to find. Archer⁷ has recommended the aspiration of the fluid contents followed by packing the cavity with 1/4-inch gauze for demarcation purposes.

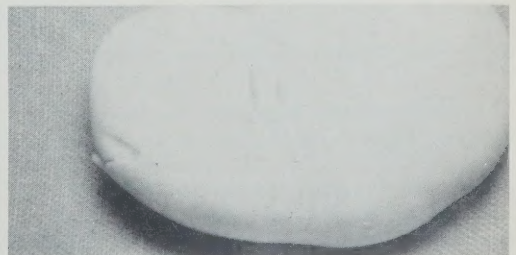
Small⁸ recommends the injection of irreversible hydrocolloid (alginate) following the aspiration of the fluid



Aspiration of Fluid and Injection of Alginate



Sutures Placed



Alginate Impression

content. A large needle (16-18 ga) is used, both to aspirate the fluid and inject the alginate; the syringe itself is simply changed.

Following the set of the material, the cystic lesion, now a ball of alginate, is dissected free from the underlying tissues. In essence, the roof and the walls of the lesion are removed. The floor remains and the edges are sutured to the surrounding soft tissues in the floor of the mouth. Protection to the remains of the lesion is in most cases not required.

Healing is usually uneventful and recurrence is rare following this mode of treatment.

SUMMARY

Traumatized minor or accessory salivary glands commonly result in cyst-like lesions. Treatment should be complete or partial excision as outlined above.

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The Distal Extension Removable Partial Denture: ABUTMENT TOOTH CONSIDERATIONS

CAPTAIN E.D. CRAGG, DDS.



Abutment teeth adjacent to distal extension bases are subjected to not only vertical and horizontal forces but also to torque resulting from the movement of the tissue supported base. Slight movement of tooth-tissue born denture during function is desirable to minimize this

torquing force on the abutment tooth.

This article deals with some aspects of abutment tooth selection and retainer design relevant to the construction of a distal extension removable partial denture.

ABUTMENT TOOTH SELECTION

The quality of the alveolar support of an abutment tooth is of primary importance because the tooth will be called upon to withstand greater stress loads when supporting a denture.

Evaluation of alveolar support to determine the height and quality of the remaining bone must be both clinical and roentgenographic. The factors to be considered include the size of the trabecular spaces, the bone at the interproximal crest and the thickness of the lamina dura, the thickness of the periodontal space, index areas, root morphology and the degree of tooth mobility.

The Size of the Trabecular Spaces. The size of these spaces may vary considerably within normal limits. Abnormal stresses may create a reduction in the size of the trabecular pattern, particularly in that area of bone directly adjacent to the lamina dura of the affected tooth. This bone condensation is often regarded as a favourable bone response, indicative of an improvement in bone quality. However, if these stresses are not relieved, a decrease in patient resistance may lead to bone resorption.

The Lamina Dura and the Interproximal Crest. During an active tipping process, the lamina dura is uneven with evidence of both pressure and tension on the same side of the root. An irregular intercrestal bone surface often indicates bone deterioration.

Thickness of the Periodontal Space. An increased thickness of the periodontal space ordinarily suggests varying degrees of tooth mobility. This must be evaluated clinically.

Index Areas. Index areas are those areas of alveolar support that indicate the response of bone to abnormal stress. Favourable reaction to such stress may be taken as an indication of future reaction to an added stress load and is referred to as a positive bone factor. Teeth elsewhere in the same arch may then also be expected to react favourably to abnormal loading.

Root Morphology. Teeth with multiple

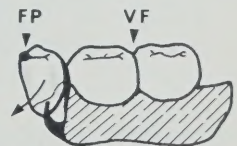
or divergent roots will resist stresses better than teeth whose roots are fused or conical since the forces are distributed through a greater number of periodontal fibres to a larger amount of supporting bone.

Tooth Mobility. Ideally, an abutment tooth should have zero mobility. First degree mobile teeth should be clasped only when necessary. The tooth crown-root ratio is the important consideration. The clasp arm should be as close to the fulcrum point of the tooth as possible. This may necessitate clasping a retentive area on the root surface. Where possible, second degree mobile teeth should be splinted, not clasped. The prognosis for third degree mobile teeth as abutments is poor.

DIRECT RETAINER DESIGN AND PLACEMENT

Clasp Design - The Retentive Arm. During function, the distal extension saddle moves toward the tissue. If a disto-occlusal rest is used, it becomes the fulcrum point (FP) and that part of the clasp that lies in an undercut area will engage the tooth causing a lifting action. This is true of both a circumferential clasp and the commonly used T-bar clasp and is due to the fact that the clasp wraps around the natural contour of the tooth and is inflexible. This can be overcome by using either a wrought wire retentive clasp arm which can be flexed freely or an I-bar. The tip of the I-bar contacts the tooth at its point of greatest convexity. A vertical force (VF) on the saddle results in a downward and forward movement of the I-bar when used with a mesially placed occlusal rest, causing the I-bar to disengage the tooth (Figure 1).

Figure 1



When a circumferential clasp is placed on a tooth, the natural contour

of the tooth is altered. Interference with the natural flow of food over the tooth and onto the gingiva results in loss of tissue stimulation. This distortion of tooth form provides a space for food debris to accumulate between the clasp and gingiva. A much more natural situation exists when an infrabulge I-bar cast clasp is used. This type of clasp causes the least possible distortion of natural tooth contour and allows for natural food flow, gingival stimulation and minimal contact of the clasp with the tooth.

Occlusal Rest Placement. The distal extension removable partial denture becomes increasingly tissue supported as the distance from the abutment increases. Close to the abutment the occlusal load is transmitted to the abutment tooth by means of the rest. Thus, the supporting tissue immediately distal to the abutment tooth is to some extent wasted functionally. To provide a more equitable vertical force to, as well as increasing the support provided by the supporting residual ridge tissues, it is suggested that the occlusal rest be placed as far mesially as possible from the distal extension base. The mesio-occlusal surface of the abutment tooth serves this purpose very well and is therefore preferable to the disto-occlusal rest site (*Figures 2a, 2b*).

Figure 2a

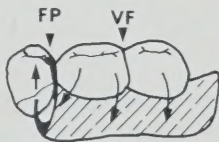
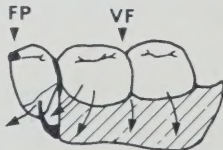


Figure 2b



In addition, the placement of an occlusal rest on the distal portion of the posterior abutment will tend to tip the tooth posteriorly when vertical force is applied to the distal extension. This, combined with the lifting action

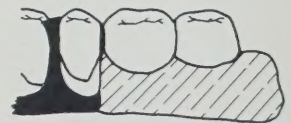
of a cast circumferential or T-bar clasp, can lead to tooth mobility and bone loss. If the rest is placed on the mesio-occlusal surface, it will tend to tip the tooth mesially where it will receive support and bracing assistance from the teeth anterior to it.

If the fulcrum point is moved to the distal surface of the tooth with an I-bar, the movement of the clasp tip will be upward and forward when a vertical force is applied to the distal extension. This will involve engagement of the undercut area and cause a torquing effect on the abutment tooth (*Figure 2a*). Therefore a mesio-occlusal rest site should be used with an I-bar clasp.

The occlusal rest preparation must be spoon-shaped to allow rotational movement about the fulcrum point during function.

The Minor Connector. In keeping with the I-bar-mesial rest concept, the use of a distal guiding plane is recommended. Areas of parallelism are prepared on the distal surface of the abutment tooth. These planes guide the framework into place without creating lateral stresses. The guiding plane preparation wraps slightly around the abutment tooth giving bracing support to the denture. The metal framework fits against the tooth surface and onto the ridge for a distance of about 2mm, eliminating any food trap in this area. The occlusal rest joins the major connector by means of a minor connector on the lingual surface (*Figure 3*).

Figure 3



When a mesial rest is used, a lingual reciprocating clasp arm is not desirable. Bracing is provided by the wrap-around design of the distal guiding plane and the lingual rest arm which contacts the mesio-lingual surface of the abutment tooth. The contour of the tooth is not altered, allowing natural stimulation of the lingual gingivum (*Figure 3*).

The metal framework must be relieved slightly in all areas of tooth and tissue contact. This can be accomplished during the try-in stage by using a pressure indicating solution of jeweler's rouge and chloroform. When the solution has dried, functional movement is simulated by finger pressure on the metal framework. Shiny spots indicating pressure points are relieved and re-tested until they disappear.

OTHER CONSIDERATIONS

The Use of Isolated Teeth as Abutments. A single abutment standing alone in the dental arch generally requires the splinting effect of a fixed partial denture if a distal extension base is to extend from it. The lack of proximal contact will subject the isolated abutment tooth to mesial tipping. Splinting will eliminate the anterior edentulous segment and provide multiple abutment support.

The Periodontally Weakened Tooth. If a tooth is too weak to use alone as an abutment tooth, it can be splinted to the adjacent tooth by casting or soldering two crowns or inlays together or it can be bypassed by using an I-bar to the buccal of the adjacent tooth, a rest on the mesio-occlusal surface of the adjacent tooth and a guiding plane to the distal of the weakened tooth (Figure 4).

Figure 4



SUMMARY

The I-bar clasp, when placed at the point of greatest circumference of the tooth and used in conjunction with a mesio-occlusal rest and a distal guiding plane will exert no adverse or torquing force on the abutment tooth.

Extracoronary retainers alter the natural tooth contour and interfere with proper stimulation of the gingiva and natural cleansing action. The infrabulge I-bar design alters natural tooth contour the least and allows for more natural gingival stimulation than any other type of extracoronary retainer, with minimal tooth contact.

An occlusal rest placed on the mesial or anterior part of the most distal abutment tooth provides soft tissue support more perpendicular to a greater area of residual alveolar ridge than does one on the distal side of that tooth.

The occlusal rest providing a mesial rotation point tends to tip the abutment tooth anteriorly where it is reinforced by other teeth.

The use of distal guiding planes provides a path of insertion for the removable partial denture without creating destructive lateral forces on the abutment tooth. Food traps are eliminated between tooth and gingiva and the necessary bracing support is provided.

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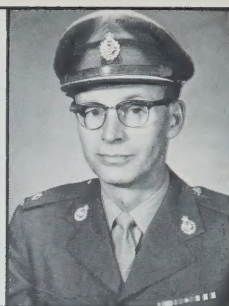
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Dentist's

Prior to 1660, the sole dental standard for campaigns was the possession of incisors and later, incisors and canine teeth, to enable the soldier to bite off the cap of the charge when loading his musket.

RESCUING REMOVABLE PARTIAL DENTURE ABUTMENTS

MAJOR C.L. GULLEKSON, DDS.



McCracken¹ states that ideally, all abutment teeth would best be protected with full crowns prior to partial denture construction. Economically this may be justified from the long-term viewpoint, but in practice full coverage is not always possible nor indicated at the time of denture construction. The dentist must therefore be able to restore defective abutment teeth at a later date and maintain the serviceability of the denture.

Frequently a removable partial denture wearer presents with a cariously involved tooth and it becomes necessary to fabricate a crown to fit components of an otherwise serviceable denture. Occasionally one encounters a situation in which an existing full crown abutment has failed and must be restored. The aim of this article is to describe how one can meet such emergencies and not have to remake or modify the partial denture. Techniques and suggestions presented have been gathered from various dental textbooks and journals but mainly from information gained while on course recently at the U.S. Naval Dental School, National Naval Medical Center, Bethesda, Maryland.

UTILIZING EXISTING CROWNS

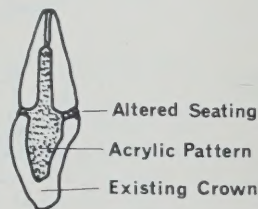
A patient presents wearing a cast removable partial denture, an abutment of which, consisting of a separate crown and post-core, has repeatedly loosened from the core or abutment root.

Investigation usually reveals a gold post too short and tapered and a favour-

able root canal. How can this problem be dealt with, minimizing patient inconvenience yet salvaging the existing crown and partial denture? Captain Granger* suggests the following step by step procedure.

- Carefully separate the crown from the post (drill out the post rather than damage the crown).
- Inspect the interior form of the crown and alter it if necessary to provide greater parallelism between labial and lingual walls.
- Modify the post-hole to provide adequate depth and a flat base, stopping frequently to ensure visibility of the root canal. Establish mesial and distal key-ways and bevel the inside margin.
- If the existing shoulder requires modification, also perfect the crown margins; the finished restoration will show an additional cervical band of gold (Figure 1).

Figure 1



- Retract and control the gingival tissue.
- Insert the crown and removable partial denture in the patient's mouth

*Captain Ronald G. Granger, DC, USN, Head of Fixed Prosthodontics Denture Section, U.S. Naval Dental School, Bethesda, Maryland.

and carefully attach the two together using sticky wax or autopolymerizing acrylic resin and check the centric occlusion. Remove the partial denture and the crown.

- Apply separating medium to the inside of the crown and to the post-hole.
- Using a brush technique, fill the post-hole and crown with acrylic resin, over-building and using ample liquid.
- Insert the partial denture (with crown attached) in the mouth, check the relationship, and prior to the set of the acrylic, remove interproximal flash for later ease of removal.
- Remove the acrylic pattern, reduce the excess and if the margins appear indefinite, apply a thin layer of soft inlay wax and reseal in the mouth. Repeat until definite margins are evident.
- Sprue the pattern on the labial surface of the core and cast.

The above procedure is repeated using the second acrylic pattern as a temporary post and core for the crown.

The patient may be dismissed with the denture and crown in place.

Note. If it is possible to retain the original gold post and core, this may be used temporarily if it is built up to the new dimensions with autopolymerizing acrylic resin and seated with temporary cement.

Variations

Patient presents with loose one-piece post-crown casting in which the post is of inadequate length and contour.

Inside the solid crown develop an ideal preparation using high-speed burs and stones. Re-contour the post-hole and shoulder if necessary and proceed as described.

Note. Should the post be fractured,

with a remnant remaining, this can also, with care, be removed.

Endodontically treated tooth fractured off at the gingival margin, a full veneer crown but no post or core.

Remove the tooth structure from the crown, prepare a post-hole and follow the procedure outlined.

Note. Teeth filled with a silver point should be re-treated endodontically with gutta percha as ultra-speed cutting tends to break down the cement seal to the canal wall promoting re-establishment of periapical pathology.

FABRICATING CROWNS TO FIT EXISTING REMOVABLE PARTIAL DENTURE RETAINERS

Direct Technique. (Demonstrated by Captain Granger).

- Restore the mutilated tooth in a manner suited to the degree of involvement using amalgam, pin-reinforced amalgam, with or without endodontic treatment, gold post and core or even cement where considerable tooth contour remains.
- Complete a crown preparation of choice, ensuring adequate clearance for occlusion and denture components.
- Select an over-size copper band, anneal, contour and crimp it at the gingival margin. Reduce the band height so that complete closure is possible without occlusal interferences.
- Heat blue inlay wax in a water bath at 135°F, fill the lubricated band, flame, temper and seat it over the prepared abutment. Direct the patient to close on a thickness of rubber dam to establish centric occlusion in the wax.
- After chilling, withdraw the pattern and remove the band by cutting vertically where the wax is thickest.
- Partially contour the pattern prior to re-seating it in the mouth. Check and modify contact areas.
- Prior to seating the denture, moderately heat the involved metal compo-

nents. Several seatings may be necessary to clearly record clasp components in the wax pattern.

- After removal of the partial denture, a small amount of wax must be added to the facial just occlusal to the fully seated retentive clasp tip. This is to develop a height of contour which thus puts the retentive clasp tip in an infrabulge relationship. The removable partial denture cannot be resealed over the pattern following this procedure. Modifications to this area of the crown can be effected after casting.

- Complete the carving in the hand and try in the mouth; then sprue and cast the pattern.

Note. This method works well in the hands of the skilled operator but for the vast majority a direct-indirect procedure is suggested. A die is constructed from a compound tube impression and on this the crown pattern is completed once a clear clasp record has been established.

- If an acrylic veneer is to be added, contour is recorded by making a stone matrix of the completely waxed-up facial surface. The veneer space is then carved in the wax pattern and the stone matrix is invested opposite the casting when the veneer is processed.

Indirect-Direct-Indirect Technique.

McCracken¹ suggested the following procedure in making crowns and inlays to fit existing denture retainers.

- Prepare the restored abutment tooth and from a copper band impression, pour a stone die.
- On the lubricated die, form a thin self-curing acrylic coping using the brush technique, leaving it just short of the margin of the preparation. The rigid coping minimizes pattern distortion.
- Add soft inlay wax to the occlusal surface of the coping, insert and have the patient close, then carve excursion paths in the wax. Add wax and insert the coping several times until contact relations,

marginal ridges, buccal and lingual surfaces are established.

- Position the warmed denture components over the pattern, repeating until the denture is fully seated and clasp components are clearly recorded (*Figure 2*).

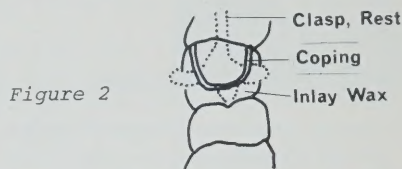


Figure 2

- Complete the wax-up on the die, adding wax to produce a retentive undercut (*Figure 3*); wax and cast.

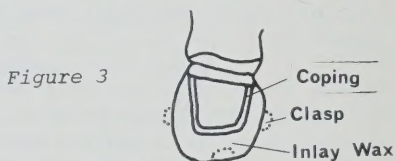


Figure 3

Note. In fabricating inlay patterns to fit the inside of clasps the same technique is followed. Small patterns can be done entirely in wax, but larger inlays are best supported by an acrylic foundation to which wax is added.

Direct-Indirect Technique

Reynolds² varies his procedure as follows, depending on the extent of mutilation.

Considerable remaining surface contour

- Restore the tooth contour in wax with the partial denture in place.
- Remove the denture and make a rubber-base impression.
- Prepare the abutment tooth and from a band impression, pour a stone die.
- Make a thin coping of self-curing acrylic either on the lubricated die or directly in the mouth and modify it to eliminate any contact with clasp components or opposing cusps.
- Block out undercut surfaces lying gingival to the contact area on the adjacent tooth.
- Reduce the periphery and remove all

- interproximal tags of the rubber-base impression. In the impression only of the tooth to be crowned, place just enough acrylic resin to complete the crown contour. (A small escape hole in the impression will prevent supra-occlusion.)
- Seat the impression in the mouth with minimum pressure and water cool until the acrylic is almost completely set. (The crown is easier to remove and occlude prior to the final set.)
 - Remove and trim off the acrylic flash.
 - Adjust in the mouth with the partial denture in place. (Selective grinding is done and imperfections may be filled in with wax.)
 - Position the acrylic pattern on the lubricated die and finish the margins with wax. (The casting will be an exact duplicate of the anatomy of the original tooth.)

Considerable surface detail lost

- Complete a crown preparation on the restored tooth and pour a stone die from a band impression.

- Construct an acrylic coping on the stone die, position the coping on the tooth and seat the denture.
- Paint acrylic between the coping and clasp components using a serial build-up. To facilitate removal of the denture, avoid an excess.
- Add soft inlay wax to the occlusal surface of the coping and have the patient close in centric and go through eccentric excursions.
- Finalize the wax-up on the lubricated die, invest and cast.

The restorative methods discussed are intended as a review of some of the current literature. The method that works best in a practitioner's hands is the best for him.

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THE USE OF TWO TOPICAL FLUORIDES

(An abstract reprinted from J.O.D.A., Vol. 47, No. 6, June 1970.)

It is possible that a greater reduction in caries may be achieved if two topical fluoride solutions - stannous fluoride and acidulated phosphate fluoride - were used together than if each were used alone.

Researchers report that acidulated phosphate fluoride provides a higher concentration of fluoride in the outer layers of the enamel than does stannous fluoride. Therefore, acidulated phosphate fluoride should provide superior protection against new carious lesions.

Stannous fluoride, on the other hand, has the property of caries arrestment.

Apparently, it contributes to the remineralization of partially demineralized tooth structure.

There have been no studies in which both types of topical fluorides were used together. This is a fruitful field for research. The arrestment of carious lesions and the prevention of new lesions by the use of two fluoride solutions could provide a double-pronged attack against caries.

Binns, William H. Jr., Temple University School of Dentistry, Philadelphia, Pa. *A Double-barreled Approach to Topical Fluoride Therapy*. Penn Dent J. 36:45, February 1969.

BGen Kearney Retires

On 7 May dental officers from across Canada, their ladies and several guests gathered at the CFB Uplands Officers' Mess to honour BGen Kearney. BGen EM Wansbrough unveiled a colour photograph of BGen Kearney which will hang in the CFDS Library, and on behalf of the members of the CFDS presented BGen and Mrs Kearney with a set of crystal and a copy of the photograph. Major CA

Casterton presented BGen Kearney with a green "masters" jacket complete with the new CFDS crest and LCol JC Brick presented Mrs Kearney with a bouquet of roses.

Following his retirement in July, BGen Kearney will take up his new duties as Chairman of the Department of Pediatric and Community Dentistry at the Faculty of Dentistry, Dalhousie University.

DGDS Appointed

BGen GC Evans was promoted and appointed DGDS at CFHQ on 15 July.

After receiving his DDS at the University of Alberta in 1944, he was commissioned as a dental officer and served in various locations in Canada and overseas including duty on board

HMCS Ontario; the wartime base at Tofino B.C. during 1945-46; Korea in 1952 and Germany from 1960 to 1963. He was posted to the staff of DGDS in July 1963 and moved to Edmonton in 1965 to become the Commanding Officer of 11 Dental Unit, an appointment he held until his recent return to Ottawa.

DGDS CONFERENCE, OTTAWA, 6-8 MAY 1970



Left to Right. Seated: Col LG Craigie, Col JW Turner, BGen BP Kearney, Col GC Evans, Col GR Covey. *Standing:* Col WR Thompson, LCol G MacDougall, Major DE McDermott, Major DG Cartwright, LCol JC Brick, LCol JW Fletcher, LCol LA Richardson, Capt E Clark, Major CA Casterton, LCol LR Pierce, Major JVP Chatwin, LCol NA Butcher, Col RHG Cunningham, Col GW Bagnall.



Czechoslovakian Training Program

The twelve graduates of the Czechoslovakian Training Program conducted by the Canadian Forces Dental Services at the University of Western Ontario were presented with their certificates at a ceremony in Toronto on 22 June.

The presentation ceremony was sponsored by the Royal College of Dental Surgeons of the Province of Ontario with BGen BP Kearney and the instructional staff as guests.

Speakers were Dr HM Jolley, President, and Dr KF Pownall, Secretary-Treasurer, of the Royal College of Dental Surgeons of Ontario, Mr TL Wells, Minister of Health for Ontario, Mr TR Watt of the Department of Manpower and Immigration and BGen Kearney. Dr Jolley and BGen Kearney each extended their best wishes to the graduates in the Czechoslovakian language.

The following correspondence is indicative of the success of the program.

Dear Mr. Cadieux:

You will recall that a retraining course was set up and conducted for the group of Czechoslovakian dentists who were unsuccessful in the Board examinations of this College in 1969.

I am sure you will be pleased to learn that twelve Czech dentists will complete the course this month and will be available for practice

in this Province. May I take this opportunity of thanking you for the assistance you rendered in respect to this course and for making available to us the valuable services of Brigadier-General BP Kearney, Colonel LG Craigie, Major AG Taylor, Major JN Wright and the other members of the Armed Forces in the conduct of the course. Their help was invaluable and contributed greatly to the success of the dentists concerned.

The President and Directors of The Royal College of Dental Surgeons of Ontario join me in this expression of appreciation of all your assistance.

Kenneth F. Pownall, DDS
Registrar-Secretary-Treasurer,
The Royal College of Dental
Surgeons of Ontario.

8 June 1970

Dear Dr. Pownall:

I wish to acknowledge and thank you for your letter of 8 June in which you express your appreciation for the assistance rendered by the Canadian Armed Forces with respect to the retraining course of Czechoslovakian dentists.

I will be pleased to see that all concerned are made aware of the kind remarks contained in your letter.

Leo Cadieux
Minister of National
Defence

12 June 1970

53 years ago ...

MEMORANDUM

Ottawa, December 11, 1917

I observe from correspondence on this file that the D.G.M.S. has dealt with a question of dental treatment. This matter should have been referred to the Director of Dental Services for necessary action. Will you please inform the D.G.M.S. that all matters affecting the Dental Services in Canada are dealt with by the Director of Dental Services, and that in future should any questions of dental treatment be included in correspondence with medical treatment, he should, after taking action on the medical end, pass the file to the Dental Services for their attention.

Adjutant-General
Department of Militia and Defence

Visits

Major-General Robert B Shira, Assistant Surgeon General and Chief of the US Army Dental Corps visited the School 29 to 31 May to inspect training facilities and observe training techniques and programs. General and Mrs Shira were guests at a mess dinner in the evening of 29 May held to honour BGen BP Kearney.

Personnel of the School hosted a visiting group of educators from the Quebec Department of Education during April. The educators were interested in the types and methods of training at the CFDS.

During the Ontario Dental Association Convention in Toronto from 10 to 13 May, LCol PS Sills presented a paper "The Challenge of Stability in Complete Denture Treatment"; Capts D Devine, D Graham and G Pinsonneault presented project- ed clinics on oral health devices.

Special Events

CFB Borden celebrated Armed Forces Day on 13 June. The CFDS was well repres-

ented with the theme "Dentistry Under Field Conditions".

The School held a Spring Ball in the Cambrai Sergeants' Mess on 2 May. The good food and companionship made the evening extremely enjoyable although a sad note crept into the festivities when "good-byes" were said to personnel being posted out this summer.

Sports

Once again ardent curlers have been able to pursue their particular sport deep into a season when most sport enthusiasts have turned to baseball, golf or fishing. The first week-end in April saw the close-out bonspiel for the 1969-70 curling season at the Base Borden Curling Rink. Capt Maxie Fisk's team - MWO Bob Goodwin, Capt Dave Devine and Capt Dave Wilson - brought honour to the School by winning "A" Event. The winning team of "C" Event had two dental members: Capt Dale Graham, skip, and MWO Jack Sadler, lead.

US Army Institute of Dental Research - Director Appointed

Colonel SN Bhaskar has been appointed the Director of the US Army Institute of Dental Research at the Walter Reed Army Medical Center in Washington DC.

Col Bhaskar received his DDS from the Northwestern University and MS and PhD degrees from the University of Illinois. He is a diplomate of the American Board of Oral Pathology and the American Board of Oral Medicine. He has published more than 140 scientific papers and contributed to five books. In addition, he is

the sole author of three textbooks which are used in most dental schools in the United States and Canada.

The Army Dental Institute is the only organization of its kind and is devoted exclusively to military dental research and education. Seven one-week courses in various aspects of dental practice are given every year and these are attended by military as well as by more than 1500 civilian dentists.

CFDS

ANNUAL GOLF TOURNAMENT

**CFB TRENTON
24-25 September 1970**

Promotions and Retirements

On 17 June the officers of the Division gathered to say farewell to BGen BP Kearney, Major CA Casterton and Capt E Clark. BGen GC Evans, Col LR Pierce and LCol JVP Chatwin acknowledged their promotions in the traditional manner and thus minimized the overhead costs of the party.

Each officer received a framed RCDC crest and BGen Kearney was presented with a matching framed CFDS crest and an engraved cigarette box for his new home in Halifax. Major Casterton received a special stein and a briefcase of medical interns' posting plans and Capt Clark a radio that has sufficient range to pick up Expo broadcasts.

Born in Kingston Ontario, Major "Cac" Casterton enrolled in the CDC in November 1939. He proceeded overseas with 2 Canadian Infantry Division Dental Company in June 1940 and served in the United Kingdom and North-West Europe until returning to Canada in December 1945. He was commissioned in February 1951 while serving with 11 Dental Company in Edmonton. As an administrative officer, Major Casterton served initially at CFHQ in the Division of Dental Services followed by postings to 4 Field Dental Company in Europe, The RCDC School, 1 Dental Equipment Depot and finally at CFHQ as career manager for dental and legal officers and chaplains.

On 2 July, Major Casterton joined the staff of the Association of Canadian Medical Colleges in Ottawa as Director of the Canadian Intern Matching Service.

Capt Ernie Clark has served from his enlistment in the CASF in July 1940 until his retirement in May 1970. He was awarded the British Empire Medal for his services during the Second World War. He was commissioned in June 1952 and promoted Captain in September 1955. His postings during service brought him to Ottawa four times.



Major Casterton



Capt Clark

The Clark family has moved to London where Capt Clark has accepted a position with the Faculty of Dentistry at the University of Western Ontario.

New Career Managers

The CFDS now have two officers working for the Director General of Postings and Careers. Major MN Deyette is the career manager for dental and legal officers and chaplains major and below, and Capt RW Bowness is the career manager for dental tradesmen.

Sports

Sgt PJ Dumas was presented with the Life Member Award by the CFHQ Sub Aqua Club at the Club's annual banquet in June. Since his posting to CFHQ in 1965, Paul has been diving and safety instructor and has held the positions of Secretary, Vice-President and President. Since the club started in 1963, there have been only three other recipients of this award.



Retirements



1 July 1970. Col RHG Cunningham (standing), hands over 13 Dental Unit to Col WR Thompson.

Born in Toronto, Col Cunningham graduated in dentistry at the University of Toronto in 1940 and practiced in Toronto until November 1941 when he joined the Canadian Dental Corps.

His first posting was Camp Borden and in August 1942 he proceeded to England. In November 1943 he was posted to Italy with No 8 Dental Company and was bombed in the Mediterranean, losing all his equipment. After being re-outfitted, he was posted to the Lord Strathcona Horse (RC) and remained with that unit in Italy and North-West Europe until the end of the war. He returned to Canada in December 1945 and continued his service in Calgary, Centralia, Trenton, Ottawa, Germany and Halifax. In 1966 he returned to Trenton as CO 13 Dental Unit and Regional Dental Officer until his retirement in July of this year.

Col Cunningham served with the Dental Corps under three of its' titles: Canadian Dental Corps, Royal Canadian Dental Corps and Canadian Forces Dental Services.

Col and Mrs Cunningham and their three children will make their home in London Ontario where Dr Cunningham has accepted a position with the London Board of Education.

Personnel

Cpl WR McIntosh successfully completed a university history course at Nipissing College in North Bay despite his extended stay in hospital ... Cpl JA Violette received his diploma as an electrical instrument technician on completion of an International Correspondence School course ... Sgt ES Beattie received the first clasp to his CD on 17 January 1970.

Sports

Although golf and softball are now the main activities, curling and hockey accomplishments during the past season are well remembered.

Our top lady is Cpl Bev Gilkes. Bev received three trophies at the end of the season. She won the "most improved curler" in the club, was a member of the team winning the "mixed championship for the Trenton area" and was also a member of the team winning the "mixed championship of the CFB Trenton Curling Club".

LCol RA Fell and Major IAC MacDonald were members of the rink which won the "A" Division Men's League at the Garrison Curling Club, CFB Kingston ... MWO RK Jones and WO JE Clarke were winners in the 4 RCHA Sgts' mixed bonspiel at CFB Petawawa ... MWO Jones, with WO Clarke, MWO EMB Everett and Cpl PR Coss were second runners-up in "A" Division bonspiel ... with this "sweep" we clear the "house" for summer sports ...

The golf handicaps are being worked out and the stories written at the nineteenth hole.

In softball, Cpl(W) BF Breadner is maintaining her undefeated record of last year in the Belleville and District Women's League, starting the season with a win of 25-0 and winning her most recent game by 18-2.



HQ CFB Trenton Hockey Champions for Second Successive Year. The CFB Trenton Hockey Championship Trophy is presented by LCol RF Brown to MWO RF Matheson, Captain and Assistant Coach for the 1969/70 hockey season. Last year MWO Matheson guided his team to its first championship.



Best Goalie Award. LCol RF Brown, CFB Trenton, presents the best goalie award for the 1969/70 hockey season at CFB Trenton to Cpl JLA Violette. With thirty-five goals scored against him in twelve and a half games, Cpl Violette established a 2.84 average.



Petawawa Dental Conference

The CFB Petawawa Dental Clinic were hosts at the CFB Petawawa Officers' Mess for the members and wives of the Renfrew County Dental Society. These Ottawa Valley dentists came from Arnprior, Renfrew, Cobden, Pembroke, Deep River, Barry's Bay and the various towns in between. The President of the Society, Dr E Murphy of Cobden acted as host for the evening. CFB Petawawa was represented by

LCol LG Doiron who spoke of the relationship of the personnel of CFB Petawawa and the civilians and business community of the Ottawa Valley. Capt CW Kearns extended greetings on behalf of the personnel of the Dental Clinic and referred to the dental activities on the base and also to some of the undertakings of the Canadian Forces Dental Services, specifically the CFDS School and the retraining program for Czechoslovakian dentists at the University of Western Ontario.

15 Dental Unit

*

by MWO AF Davison, CD

Major Nadeau to the Altar

Major HJ Nadeau married Nursing Sister Lucy Forget in an impressive ceremony on 9 May in the Maurice Chapel at the Collège militaire royal de Saint-Jean. Maj Nadeau now has some words of warning to young bachelors contemplating marriage: "You just can't live on love alone ... it's not true that two can live as cheaply as one..."

Fishy Story from Bagotville

When the trout season opened, Major FC Arpin was "Johnny on the spot" and claims that he caught enough trout to supply "all the therapists in the Corps"

with a meal of trout. We wonder why he selected therapists ... perhaps bait for one for his clinic???

Snow Fun

It seems out of season to be reporting winter sports but these late reports were uncovered when the snows melted ... Capt JS Dion and his wife Louise won a trophy for being members of the best first year ski patrol in the Quebec Zone ... Capt YJA Gagnon won the giant slalom and was "overall second" in the Mont Apica ski championships ... that holiday in Austria must have paid off.

14 Dental Unit

*

by WO JM Roberts, CD

Retirements

On the evening of 1 May the unit hosted a mixed retirement and farewell party to honour Capt Herbie Doyle, retiring after thirty years service with the RCDC, the last nine years of which he was 14 Dental Unit Supply Officer. Unit members from distant clinics as well as many close friends and ex-members of the RCDC from Winnipeg attended and wished him well. Capt and Mrs Doyle were presented with a gift of fireplace accessories for their home in Richmond B.C. on behalf of unit personnel and a framed RCDC crest from all RCDC officers ... A party was held on 25 June to honour CWO Bob Daw on his retirement. Bob was presented with an inscribed silver mug ... In the afternoon of 26 June a posting and retirement party was held at CFB Winnipeg to honour MWO Bob Stewart on his retirement after 28 years with the RCDC. Bob was given a gift from the unit and everyone wished him the best of luck in his new job at the University of Saskatchewan ... At the same party, LCol NA Butcher was presented with his farewell gift on departure to a warmer climate and greener golf

courses as CO 11 Dental Unit at CFB Esquimalt.

Hello ... hello out there

WO Ken Libby has completed a National Institute of Broadcasting Radio-TV Announcing Course at his own expense. He started the course in October 1969 and passed the final exams in June 1970.

Gypsumville's Watchdog

His Worship, Mayor Wayne Wilford of CFS Gypsumville has been so successful in his attempts to infiltrate the station during security checks and practices that he has been appointed Station Security Officer.

Sports

On 20 May the second annual CFB Cold Lake golf tournament was held at the Palm Springs Golf Course. The winners, Capt H Pankratz and MWO J Fraser, were presented with the trophy held by the clinic. This is the second consecutive win by Capt Pankratz.

35 Field Dental Unit

*

by Sgt CWJ Powell, CD

Visits

During late March, BGen BP Kearney and Mrs. Kearney arrived for a visit ... A luncheon on 24 March was attended by BGen Doyle, Chief of Staff, 1 Air Division, Col GH Sellar, Commander CFB Europe, Col Irwin, Regional Surgeon, the DGDS and officers of the unit ... BGen and Mrs Kearney with LCol and Mrs Protheroe toured France and Spain, returning 3 April ... The DGDS and CO 35 FDU then left Lahr for discussions concerning dental services at AFCENT and SHAPE. BGen and Mrs Kearney left for London and Ottawa on 8 April ... In May, Capt JAR Fortier, Sgt RW McDonald and Pte (W) MM Kent made a last visit to the Air Weapons Unit, Decimomannu, Sardinia, now being closed out due to the reorganization of Canadian Forces in Europe.

Accommodation and Personnel

The formation of CFB Europe and relocation of personnel from Soest plus an increase of three civilian dentists has

resulted in construction to enlarge the clinics at Lahr and Baden-Soellingen. Apropos of the move, about half the members of this unit will be departing for Canada in the near future ... A farewell cocktail party and dinner dance was held on 13 June to say aufwiedersehen at the end of a hard-working tour in Europe ... and now that the fine weather is here, the lucky ones are taking leave to visit Europe from Norway to Spain ... no wonder they are reluctant to return to the "land of the round door knobs".

Sports

The final golf tournament between 4 Fd Dental Coy and 35 Fd Dental Unit teed off at Baden-Soellingen on 8 May ... the scores produced indicates that 4 Fd Dent Coy people spend a lot of time on the golf course ... A dinner was held in the evening at which Col Irwin, the Regional Surgeon and Major Boucher of 4 Wing were the guests of honour.

On 14 May six unit golfers left for Scotland to play at St. Andrews.

Dental Detachment Cyprus

*



Visits

LCol DH Protheroe, CO 35 Field Dental Unit visited the detachment from 16 to 23 June to inspect the dental facilities available to the Canadian Contingent.

He was briefed on the political situation in Cyprus by LCol Loomis, CO 1 RCR and toured the Canadian Section.

(Photo: LCol Protheroe and Capt TJ Erskine, OIC Dental Detachment Cyprus)

Personnel

Sgt and Mrs Red Kerr enjoyed two weeks leave on the island ... Cpl Mitrikas is playing baseball with the Canadian Contingent "Selects", currently at the top of the league.

/ Dental Equipment Depot *

by Sgt MD Longford

CFDS Supply Officers' Conference

The CFDS held a Dental Supply Officers' Conference at the Depot from 11 to 13 May. Supply and accounting procedures were reviewed and many changes were proposed.

(Top, left to right)

Front: Capt JF Mullins, Major DG Cartwright, LCol JW Fletcher, Capt MB Fisk, Lt LRJ Hatcher

Back: Capt EA Church, Capt VO Bergland, Lt B Vandervaart, Lt RD Townshend, Capt EM Lobb, Capt JR Savoie.

BGen BP Kearney and LCol LR Pierce visited the conference on the last day.



4 Field Dental Company *

by Sgt P Fox, CD

Rotation Ball

The final Rotation Ball was held at the Castor Club in Werl on 23 May.

The organizational efforts of Major DG Jones assisted by Sgts P Fox, T Kukurudziak and W Wylie made it a tremendous success. RCDC plaques or engraved trays were presented to departing members as mementos of service in Europe.

Sports

35 Field Dental Unit attempted to win back the "Horse's Head" in a final golf tournament at Lahr. 4 Field Dental Company took top honours in the tournament with low gross going to LCol GE Windsor.

It seems that the "Horse's Head" will finally get to Lahr when the remaining 4 Field personnel move south.

// Dental Unit

*

we miss you

Retirements

Twenty-six members of the unit gathered at CFB Uplands on 4 June to say farewell to MWO Del Riddell and Sgt Joe Laverty. Col GC Evans, LCol JVP Chatwin, Major CA Casterton and Capt RW Bowness were also present to wish them the best of luck in civilian life.

Del and Pat, and Joe and his new bride Doris, both intend to reside near Ottawa.

Course Completed

Major PR McQueen attended a course in Periodontics from 4 May to 20 June and received his certificate from Capt WC Wohlfarth, Jr, Commanding Officer, Naval

Dental School, National Naval Medical Center, Bethesda, Maryland.



(Official US Navy photo)

Professional Training



LCol AG Andrews recently completed the third year of the residency program in Oral Surgery at the Doctors Hospital, Toronto, and has been awarded his certification by the Royal College of Dental Surgeons of Ontario.

He received his previous oral surgery training at the US National Naval Medical Center, Bethesda; the Walter Reed Army Institute of Dental Research, Washington and the Royal College of Dental Surgeons, London, England.

LCol Andrews received his DDS at the University of Toronto in 1950 and has served in various locations including HMCS Magnificent, Korea, National Defence Medical Centre and as the Chief Instructor, CFDS School. He is now stationed at the School.

Major NH Andrews recently completed the requirements for certification in Periodontics at Walter Reed General Hospital. In 1968-69 he completed the Advanced Theory and Science of Dental Practice course at the US Army Institute of Dental Research.

Major Andrews received his BSc in 1958 and DDS in 1962 from Dalhousie University, following which he served with 14 Dental Unit, the CFDS School and UNEF (Middle East). He is now stationed with 12 Dental Unit, Halifax.





Major JF Begin received his Diploma in Dental Public Health at the University of Toronto. On graduation, he was awarded the Milton H. Brown award for "best combining the qualities of academic achievement, administrative talent and potential for an imaginative approach to the problems of administration".

He received his DDS at the University of Montreal in 1959 and graduate training at the Royal College of Surgeons in London, England, and the US Naval Dental School in Bethesda.

Major Begin has served in Goose Bay, Germany and Winnipeg and is now stationed at the CFDS School in Camp Borden.

Major MN Deyette completed a one-year course at the Canadian Forces Staff College, Toronto, in July. He is the first dental officer to attend staff college.

After graduation from the University of Toronto in 1961, he served in various locations including Petawawa, London and Europe. He is now at CFHQ and is the career manager for dental officers, legal officers and chaplains (majors and below).



Doctors Hospital, Toronto

Major JJY Turcotte ... *Two-year Residency commencing 1 July.*

Canadian Forces Training

Canadian Forces Dental Services School, CFB Borden

Oral Surgery, 8-21 April

Major RM MacDonald, Capt JEG Joubert, Capt BW Yates, Capt JJG Jacques, Major AL Kelland, Capt WD Fiolek, Capt AD Stewart.

Dental Laboratory Technician PL6 Course, 6 May - 23 June

Sgt HKK Gapmann, Sgt JRR Roy, Cpl LA Larouche, Cpl NAJ Hope, Sgt CS Brown, Sgt WD Buxton, Cpl AH Peck, Cpl RH Stenabaugh

Canadian Forces School of Management, Montreal

Senior Officers Management Symposium, 19-29 May

LCol LA Richardson, LCol JC Brick

Canadian Forces Staff School, Toronto

Junior Staff Course, 11 May - 17 July

Capt JP Carrier

Canadian Forces School of Intelligence and Security

Security Supervisors Course, 3 - 25 June

WO JM Roberts

Canadian Forces School of Instructional Technique, CFB Clinton

Instructional Technique 1 Course, 27 April - 13 May

Capt DG Wilson

Instructional Technique 2 Course, 19 May - 1 June

MWO JH Sadler

Instructional Technique 3 Course, 19 - 28 May

CWO CD Morris

Instructional Technique 4 Course, 6 - 16 June

MWO KE Laurence

Junior NCO School, CFB Shilo

Junior NCO Course, 25 Feb - 17 April

Pte D Purich, Pte RD Calnen

Welcome to the Dental Services

A cordial welcome is extended to Cpl R Jones, Pte AT Baird, Pte(W) BJ Hoffermehl, Pte(W) ML Rath, Mrs JL Thistlethwaite, Pte(W) HG Christiansen, Pte(W) SV Szablewski, Pte(W) JM Andrews, Pte(W) J Stephens, Pte D Bowering, Cpl JE Frechette, Mrs H Jansma.

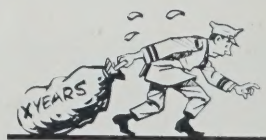


Promotions

BGen ... GC Evans; Col ... LR Pierce; LCol ... JVP Chatwin, JJN Wright; Capt ... JP Carrier, GA Ames, JCAY Ayotte, JAG Boulanger, MS Bouris, TA Bradley, JGRM Chagnon, AP Charlebois, HA Chestnut, ET Dalzell, PR Darlington, WO Donald, JJPG Duford, RJ Fennell, HV Ferber, HW Freedman, F Giesbrecht, ENH Graham, GPF Greenacre, LR Holland, LJ Hudgins, FVR Jackson, JRR Laberge, WA MacInnis, FR Margetts, DA Meredith, CG Milne, JEF Paquin, JD Rowat, JJGN Roy, JRL Salois, BP Schow, JRGB St Louis, PR Wooding, RWF Woodworth; CWO ... JM Tapp; MWO ... CH Adams; WO ... JB Arseneault, EPH Sprathoff, RM MacDonald, JP Lambert, RD Veinot; Sgt ... OW Mandrusiak, GN Challenger, CSB Heather, IG Proud, VH Swiatkevich; Cpl ... HE Lubitz, JD Hopkins, RD Calnen, LA Lambert.

Retirements and Releases

Farewell and good luck to BGen BP Kearney, Col RHG Cunningham, Majors CA Casterton, WK Dickie, GT Crossman, VM McMaster, GW Hill, AN Swanzey, CS Zwicker, FM Nesbitt, Captains E Clark, JR Cowan, HF Doyle, BH Weeks, BB Berezon, AF Brothers, WG Ebert, Z Tukums, IC Wambara, CWO RH Daw, MWO DW Riddell, MWO RG Stewart, Sgt(W) MTV Lapointe, Sgt J Laverty, Pte(W) JE Zarudski, Mrs A Duperre, Mrs G Gray, Mrs PJ Montgomery, Pte(W) ML Chiasson, Pte(W) SA McEllistrom, WO GH Couture, Mrs BA Kelso.



Honours and Awards

Dalhousie University

Capt FR Jackson ... University Medal in Dentistry, Dr. Frank Woodbury Memorial Prize (Highest Standing), Dr. Frank Woodbury Memorial Prize (Clinical Practice), The Canadian Society of Dentistry for Children Award, The Halifax County Dental Society Award.

Capt ET Dalzell ... The Dr. John W. Dobson Memorial Prize (Periodontics), The American Society of Periodontics Award.

2Lt JB DeLong (third year) ... C.V. Mosby Book Award for highest marks in Fixed Partial Denture Technique.

2Lt TP Levy (second year) ... C.V. Mosby Book Award for highest marks in Microbiology and General Pathology.

University of Alberta

Capt P Wooding, Capt BP Schow, 2Lt DR Wright (second year) ... First Class Standing.

Vital Statistics

Marriages

Congratulations and many years of happiness to Miss Gloria Andruniak and Mr G Saunders ... Lt(NS) ML Forget and Major HJ Nadeau ... Miss Judith Silver and Cpl GR Lamontagne ... Miss Doris Thom and Sgt J Laverty.

Births

Congratulations and may your children support you in your old age:

Sons ... Capt and Mrs BW Yates ... Cpl and Mrs JE Sadler ...
Capt and Mrs ED Cragg ... Sgt and Mrs CS Sabine-
Pasley ... Sgt and Mrs MG Olinik ... Cpl and Mrs
JW Griffiths

Daughters ... Capt and Mrs TC Ringland ... Cpl and Mrs H
Snutch ... Capt and Mrs CJ Sharpe ... Capt and Mrs
JM Simoneau ... Sgt and Mrs ML Allen ... Capt and
Mrs JRGB St Louis ... Sgt and Mrs H McRae



Condolences

Sincere sympathy is extended to LCol RA Fell and Cpl R Ellison on the loss of their fathers.

In Memoriam

With sincere sympathy to his family, we announce the passing of Sgt Melbourne Donald Crockett, CD, fatally injured in an automobile accident near Cold Lake, Alberta, on 27 June 1970.

Sgt Crockett was born in Charlottetown, P.E.I. in 1924, served during the Second World War to March 1946 and re-enlisted at Halifax in 1951. He is survived by his wife Carol Rachel and two children. Internment was at Charlottetown.

DO YOU REMEMBER?



The
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The CFDS Quarterly



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Published by authority of Brigadier-General Garth C Evans, CD, DDS, QHDS, FICD, in April, July, October and January, The Quarterly serves as a means for the exchange of ideas, experiences and information within the Canadian Forces Dental Services. Views and opinions expressed are those of the authors and not necessarily those of the Director General of Dental Services or the Department of National Defence.

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Cover Photo

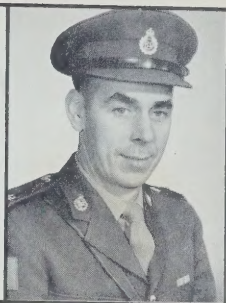
Dental plaque taken through a phase microscope (45X objective). Compliments of Dr. Merrill G. Wheatcroft, University of Texas Department of Pathology. Photograph by Mr. T.C. McCulloch, third year dental student.

The CFDS Quarterly may be subscribed for at \$4.00 per year by writing to:

Director General of Dental Services,
Canadian Forces Headquarters,
Department of National Defence,
Ottawa 4, Ontario, Canada.

BACTERIAL PLAQUE: INFLAMMATORY POTENTIAL AND CONTROL IN PERIODONTAL DISEASE

MAJOR L.A. REYNOLDS, DDS.



Introduction

Epidemiological reports indicate that close to 100% of the population experience some form of inflammatory periodontal disease. The disease attacks the "gingival unit"* during the first and second decades of life. Inattention to oral hygiene procedures and plaque control results in an extension of the inflammation below the cemento-enamel junction. The most serious consequence of the spread of the disease process to the "attachment apparatus"*** is that of bone reduction, culminating in the loss of dental function in middle and later life. Since approximately 80% of all children by age 8 show evidence of gingivitis,¹ any preventive measure, if it is to be effective, must be instituted early.

Bacterial Plaque

Bacterial plaque may be defined as "an acquired gel-like mat closely adherent to tooth or restoration surface. The mat is composed of an organic film (cuticle or pellicle), microbial masses and their products, organic and inorganic components from oral secretions, shed epithelial cells and blood cells. The major components are the cuticle, microbial masses and intermicrobial matrix. The factors leading to plaque formation have not been clarified. Important steps seem to be the precipitation of a bacteria-free pellicle from salivary glyco-proteins, followed by attachment of bacteria.

Mandel² states that plaque should be differentiated from materia alba and food debris. He indicates the following

differences:

Plaque

1. Closely adherent
2. Not removed by rinsing
3. Definite architecture
4. Food debris unnecessary for its formation.

Materia Alba

1. Loosely adherent
2. Removed by forceful rinsing
3. No particular structure
4. Food debris necessary for its formation.

Debris

1. Not adherent unless impacted
2. Readily dislodged by lip or tongue
3. No structure.

Evidence of the Role of Bacterial Plaque in the Etiology of Periodontal Disease

Clinical Observation. Patients with periodontal disease demonstrate a great accumulation of bacterial plaque and that "removal of this plaque results in diminution of inflammation".³

Bacteria in Acute Necrotizing Ulcerative Gingivitis. It is clear that ANUG is of bacterial origin since the acute phase of this disease is susceptible to the action of local or systemic antibiotics.⁴

Correlation of Bacterial Debris with Severity of Gingivitis. A number of investigators have shown a direct co-

*Refers to the epithelium and connective tissue surrounding the erupted tooth and covering the attachment apparatus.

***Comprises the alveolar and supporting bone, cementum and periodontal ligament.

relation between the amount of bacterial debris as determined by oral hygiene index scores and severity of gingivitis as determined by gingivitis index scores.⁴

Correlation of Bacterial Debris with Bone loss. Cross-sectional studies of 737 individuals conducted by Schei et al indicated that tooth brushing efficiency correlated directly with the severity of bone loss as determined radiographically.⁴

Correlation of Oral Microbiota and their Relation to Gingival Health. Loe et al have shown that withdrawal of oral hygiene measures in twelve patients with clinically normal gingiva led to accumulation of soft debris (plaque) and development of marginal gingivitis in all subjects.⁵ Resumption of normal hygiene procedures resulted in a return of the gingiva to clinical health.

Bacteria in Germ-Free Animals. Jordan and Keyes have described an aerobic gram positive filamentous bacteria as etiologic agents of experimental periodontal disease.⁶ These organisms were isolated from the subgingival plaque and induced the disease when inoculated orally into uninfected albino hamsters.⁷

Action of Microorganisms on the Periodontium

If microorganisms are a major factor in the irritation of periodontal disease they or their toxic products must affect the gingival tissues.⁸ As Arnold and Holt have hypothesized: "If no injurious bacteria were present, there would be no inflammatory reaction and consequently no lesion."⁹

A number of theories have been advanced to explain the mechanism by which microorganisms may exert destructive effects on the periodontium.

1. *Invasion of Tissues.* The microorganisms are not usually considered to have strong invasive capabilities. However, in ANUG, "Listgarten has demonstrated the infiltration of spirochaetes into the connective tissue".¹⁰

2. *Release of Toxic Substances.* Bacteria present in the gingival crevice are capable of producing substances that are potentially toxic to normal cells. Among these substances are endotoxins produced by

gram negative bacteria, ammonia, hydrogen sulphide and toxic amines.

3. *Release of Enzymes from Microorganisms.* Schultz-Haude and his associates have conducted extensive investigations relating to bacterially produced enzymes and have demonstrated that gingival bacteria can produce tissue destructive products which may be of importance in the initiation of gingival inflammation.¹¹ The enzymes, which have been identified as related to microorganisms present within the sulcus in both health and disease, include hyaluronidase, proteinases, collagenases and chondroitin sulfatase.¹²
4. *Antigen-Antibody Reaction.* Diseased periodontal tissues are subjected to intermittent and perhaps continuous antigenic stimulation from the gingival microflora and this may result in host protection and/or local tissue damage from hypersensitive reactions.¹³

It is apparent that the bacterial components of dental plaque are the major local factors in the etiology of gingival inflammation.¹⁴ Other local and systemic factors do play a role in periodontal disease. However, most available evidence that metabolic alterations, dietary and nutritional deficiencies or any generalized disease state will not initiate periodontal disease but may exaggerate or intensify the response to local irritants.¹⁵ This exaggeration may be brought about by an alteration in the resistance of periodontal tissues.

Control of Bacterial Plaque

No control program can be successful without the interest and cooperation of the patient. In a sense, he must act as his own therapist. Motivation is achieved through education and instruction by the dentist.

At the initial appointment the patient is made aware of the relationship between plaque and the progress of periodontal disease. Since plaque is invisible, it is imperative that disclosing solution be used to demonstrate its presence.

Dispersion of bacterial colonization in the cervicoradicular area is achieved with the use of a number of oral hygiene

devices. The patient must demonstrate his ability to locate and dislodge the masses of microorganisms with these aids. Review and reinforcement of the patient's effort must accompany each visit.

The incidence of gingivitis in the interdental area is greater than other areas of the oral cavity.¹⁶ The use of unwaxed dental floss is necessary as the toothbrush cannot effectively cleanse between the teeth.

Flossing Instructions

1. Tear off about two feet of floss.
2. Wrap the floss around the middle finger.
3. Have the patient place his index fingers about one-half inch apart on the floss.
4. Insert the floss between the teeth using a back-and-forth motion.
5. In working on the lower teeth the floss is held between the index fingers.
6. In the upper arch the thumb is usually held toward the buccal; index finger toward the lingual.
7. The fingers are kept close together for control.
8. The floss is pushed against the tooth and moved up and down four or five times.
9. The floss must be pushed down gently upon the tissue.
10. As the floss becomes frayed, re-wind to another section.

Toothbrushing

Since no one method is efficacious for all patients, the clinician must adapt rules for brushing teeth and flossing to the needs of the individual and instruct him carefully.¹⁷ Patients should be taught a systematic approach so that no area is missed. In the final analysis, it is not method but evidence of plaque that is important. This can be ascertained only by the use of disclosing solution. The Bass technique of brushing very often yields favourable results. A soft multi-tufted nylon toothbrush is used. The bristles are placed at the junction of the teeth and gums and the brush held at an angle of 45° to the long axis of the teeth. The brush is moved back and forth

using short strokes without disengaging the bristles from the sulcus. The brush can reach only one or two teeth at one placement. The Bass technique is especially effective for the lingual surfaces of mandibular teeth; in the presence of tori, exostoses or irregular contours, and when Class V caries is prevalent. Water sprays are useful adjuncts and may be used to flush away dislodged microorganisms and debris. However, these devices do not remove plaque and are potentially disruptive to any control program.

Dentistry must be regarded as an important predisposing factor in periodontal disease. Subgingivally extended inlay margins and amalgam overhangs shelter large numbers of organisms that are destructive to the periodontium. Instruction using a suitable oral hygiene device should follow the insertion of any restoration or appliance.

Conclusion

The removal and control of bacterial plaque is a basic requirement in the management of inflammatory periodontal disease. The minimum auxiliary aids required to disperse cervicoradicular plaque are disclosing solution or wafer, dental floss and toothbrush.

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FREE AUTOGENOUS SOFT TISSUE GRAFTS

MAJOR N.H. ANDREWS, BSc, DDS.



Introduction

The establishment of a mature functional gingival unit is one of the goals of periodontal therapy. The characteristics of this gingival unit are:

- A gingival crevice of shallow depth that can be maintained in a state of health by home oral physiotherapy techniques.
- The presence of an adequate zone of attached gingiva that is able to dissipate functional forces of muscle pull upon it.

- The absence of aberrant muscle or frena attachments.
- The presence of sufficient vestibular depth to permit the existence of an adequate zone of attached gingiva.

Early periodontal surgical technique consisted mainly of the gingivectomy procedure. This technique was successful in the attainment of the objectives of periodontal therapy if the pathologic process was limited to the gingival unit.

Failure of the gingivectomy technique in many cases led to a reappraisal of this procedure. It was determined that the gingivectomy would not provide desired results if underlying osseous defects were present or if the pathologic process was not confined within the zone of the free marginal and attached gingiva.

The elimination of the pocket by gingivectomy resulted in a margin that was composed of alveolar mucosa when periodontal pocket depth approached or extended beyond the mucogingival junction. This tissue was slow to heal, retractable and unable to fulfill the requirements demanded of the attached gingival unit.

Another problem is encountered in localized gingival recession resulting in the loss of attached gingiva around single teeth or groups of teeth. This may result in a margin of alveolar mucosa or a gingival unit composed entirely of retractable free marginal gingiva.

In both cases the retractability of the marginal tissue favours food entrapment with resultant formation and deepening of pockets and retention of bacterial plaque.

To counteract these problems of which many variations of mucogingival surgery techniques have evolved, the free autogenous soft tissue graft is one of the most recently developed.

Objectives

The objectives of mucogingival surgery have been stated by many authors and investigators. These objectives include the elimination of pockets that approach or extend beyond the mucogingival junction, the creation of a zone of attached gingiva sufficient to dissipate the pull of the muscles of facial expression located within the alveolar mucosa, the elimination of clefts of the gingival unit, and the removal of aberrant frena and muscle attachments.⁸

Another objective which received much attention in the past was the deepening of the vestibular fornix. A shallow vestibule was thought to cause lateral food impaction and interfere with oral

physiotherapy.² The depth of the vestibule does not seem to cause either one of these problems, and vestibular extension directed towards these goals has been abandoned. Vestibular extension is now performed to position the mucogingival junction to allow a sufficient zone of attached gingiva.⁸

In the past, mucogingival surgery was also used to establish zones of attached gingiva that conformed to a specific measurement of what was thought to be normal. Today this is no longer an acceptable procedure and the amount of attached gingiva sought is that amount which can effectively act as a buffer zone between the muscle and frenum tension, and the free marginal gingiva.⁴

The free autogenous soft tissue graft shares these objectives.

Indications

Since it was first realized that an adequate zone of attached gingiva was necessary for continued periodontal health, many procedures have been developed to accomplish this goal. Techniques range from the early push back or denudation procedures of Goldman, Fox and Schluger to the procedures of today which strive to develop a physiologic width of gingiva while still protecting the integrity of the underlying alveolar bone. These techniques utilized flaps in the surgical manoeuvre of the soft tissues, and range from the methods of preserving the attached gingiva by the apically positioned flaps of Nabers¹² to the laterally positioned or sliding flap of Grupe.¹¹

Whenever possible, a flap procedure should be used since the tissue complex which is repositioned in a new site maintains its viability by the vessels entering it through the pedicle. In contrast to the pedicle flap, a free autogenous soft tissue graft depends on the process of diffusion of metabolites and the early invasion of capillaries to maintain viability.

Certain conditions exist however that preclude the use of the apically or laterally positioned flap, and the free autogenous soft tissue graft becomes the treatment of choice. These condi-

tions are:

- A lack of acceptable adjacent donor tissue due to the presence of insufficient or thin and friable gingival tissue.
- The presence of a suspected dehiscence or radicular bone that is extremely thin under the area of the donor tissue.
- A shallow vestibule or numerous areas to be treated.¹⁶

When a shallow vestibule exists with an inadequate zone of attached gingiva, the free autogenous soft tissue graft is the treatment of choice as it will place the mucogingival junction at a more apical position.^{5,14} Most vestibular extension procedures fail because of an overgrowth of granulation tissue at the depth of the incised tissue. A portion of the healing in this procedure takes place by epithelization from the margins of the wound. Due to the large area to be covered by epithelium and the time required for complete coverage of the wound surface, an excessive growth of granulation tissue from the connective tissue can occur. When a graft is placed, epithelization can occur from four margins instead of only two, resulting in faster healing and a more predictable result.^{13,3}

It has been reported recently that the free autogenous soft tissue graft can be used to cover denuded roots of teeth in certain selected cases.¹⁶

A report in the literature has also described the use of a free autogenous soft tissue graft to obtain keratinized gingiva-like tissue necessary for the desirable preparation of the tooth for a crown.¹¹

It can therefore be appreciated that the free autogenous soft tissue graft can be utilized in specific cases to attain all of the objectives of mucogingival surgery. This procedure adds greatly to the dentist's ability to solve complex mucogingival problems.

Principles of Grafting

As in all therapeutic procedures, certain basic principles must be adhered to in order that success of the procedure

may be predicted.

As often happens in dentistry, the technique was tried clinically with varied degrees of success before healing studies, histologic studies and standardization of the technique took place.

The first graft described in the United States was at a lecture given by King and Pennel at a meeting of the Philadelphia Society of Periodontology in 1964.¹⁵ Histoclinical examination did not take place until 1967,⁹ and standardization of the technique was not reported until 1968.¹⁵

Donor Site Requirements

Attached gingiva is a firm resilient tissue that is tightly bound to the underlying alveolar bone and cementum. It has a keratinized or parakeratinized epithelium and the lamina propria is densely collagenous, containing few elastic fibers.⁷ These features enable the attached gingiva to fulfill its functions; that is, to act as a protective cover for cementum and alveolar bone and form a buffer between forces from frena and muscle attachments and the free marginal gingiva.

When indications exist for the use of a free autogenous soft tissue graft, donor tissue must be sought that has the characteristics of a keratinized or parakeratinized epithelium and a dense lamina propria with few elastic fibers so that it too may fulfill the functions of attached gingiva. The three areas of the oral cavity where this type of tissue can be obtained are:

- attached gingiva,
- edentulous ridge, and
- masticatory mucosa of palate.

These tissues all have limitations which must be taken into consideration when determining their usefulness as donor tissue.

It is often difficult to obtain enough gingival tissue at gingivectomy to fulfill the requirements of the recipient site. The tissue often needs to be shaped before use and this additional trauma may cause damage to, and collapse of the capillaries of the graft thus delaying its vascularization. It has been

proposed that pathological gingival tissue should not be used as this type of graft will not take.¹⁵ Other investigators have used inflamed hyperplastic gingival tissue with good results and state this tissue may serve a useful purpose.⁶

The edentulous ridge frequently provides an inadequate area of tissue to be a consistent donor site. A site with a visible extraction scar is often contraindicated as the avascularity of the scar will delay graft vascularization and endanger graft take.

The palatal mucosa offers the most abundant source of donor tissue but it also has limitations. Palatal mucosa has a submucosa which in the anterior palate is rich in fat. If this is incorporated in the graft, a delay in vascularization and a deficiency in the plasmotic circulation which is necessary for early survival of the graft will take place. The posterior area of the palate contains glandular tissue in the submucosa and this tissue, if incorporated in the graft tissue could hinder vascularization.

Recipient Site Requirements

Once the graft is removed from the donor site, its blood supply is lost. Survival of the graft depends on rapid vascularization. Vascularization of the graft is still being investigated. Three theories have been proposed:

- New vascular channels grow into the graft from the recipient site.
- Vascular channels from the recipient site penetrate vascular channels in the graft.
- Vascular channels from the recipient site anastomose with channels in the graft.

Since the revascularization of the graft depends on proliferation of capillaries from the recipient site, this bed of tissue must be capable of rapidly forming granulation tissue. Tissues with this capability include periosteum, cancellous bone and submucosa. A graft placed on bare cortical bone or denuded root surface will fail as these tissues are incapable of forming the capillary

outgrowths needed for the survival of the graft.¹⁵

An exception to this has been reported, where a graft can be used to cover denuded roots caused by gingival clefts if the clefts are shallow or narrow. The survival of the graft over an area incapable of forming granulation tissue is due to the phenomenon termed "bridging". This consists of a collateral circulation developing to the area of the graft covering the root surface from the mesial, distal and apical areas of the graft.¹⁶

Graft Reaction.

Grafts may be classified as full grafts which consist of the entire lamina propria and partial thickness grafts which contain only part of the lamina propria. Partial thickness grafts may be thin, intermediate or thick.

The thicker the graft the better it is able to withstand the functional stresses placed upon it by mastication and oral hygiene measures. However, since the viability of the graft is maintained by plasmotic circulation until vascularization occurs, a thinner graft with a minimum amount of lamina propria has a better chance for survival.

All grafts undergo primary and secondary contraction. Graft thickness determines the amount of contraction.

Primary contraction occurs immediately after the graft is detached from the donor site. The amount of contraction is in direct proportion to the amount of elastic connective tissue fibers contained in the graft. The thicker the graft the more elastic fibers present and the greater the contraction. Since gingival tissue has few elastic fibers primary contraction is of little concern when it is used as donor tissue.

Secondary contraction is caused by cicatrization of the connective tissue which unites the graft to the recipient site. This is dependent on the rigidity of the recipient site and the thickness of the graft. Therefore a thick graft on a rigid bed will resist cicatrix formation and secondary contraction.¹⁵

Techniques of Grafting

Recipient Site Preparation.



*Upper: Pre-operative view
Lower: Prepared recipient site.*

The recipient site is preferably prepared first. This will minimize the time the graft is detached from a tissue bed and prevent dehydration of the graft tissue.

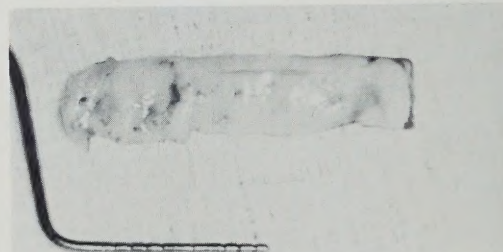
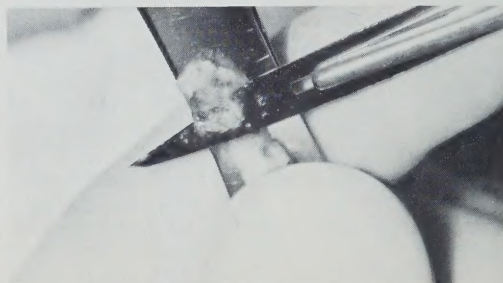
In preparation of the recipient site, the epithelium, muscle fibers and elastic connective tissue fibers are removed leaving only periosteum and a thin layer of connective tissue over the bone. This will provide a rigid base for the graft ensuring immobility of the healed graft and reduction of post-operative contraction.

The prepared site should be as smooth as possible to prevent irregularities in the surface that would allow blood to pool, clot and delay vascularization of the graft.

When the recipient site is prepared, the area should be measured or a template prepared from wax or foil so that

an adequate amount of tissue can be removed from the donor site. The recipient site is then covered with saline soaked gauze to protect the area and promote hemostasis.

Donor Site Preparation.



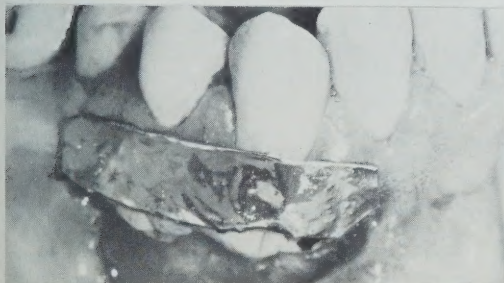
*Upper: Donor site
Center: Graft being thinned
Lower: Free mucosal graft.*

Before any tissue is removed from the donor site, the incision is outlined using the measurements or template obtained from the recipient site. An access incision is then made at one edge of the proposed graft. A V-shaped piece of tissue is removed from the graft area enabling the operator to determine the thickness of the graft and making it easy to start the dissection of the graft from the donor site.

The graft is detached from the donor

site and handled carefully to avoid damage to the vascular channels of the graft which could subsequently delay vascularization. The subsurface is made as smooth as possible to avoid the pooling of blood, and if gingival tissue from a gingivectomy procedure is used, it may have to be shaped to fit the recipient area.

Graft Immobilization.



*Upper: Graft sutured in place
Lower: Adhesive foil coverage*

When the graft has been prepared, it is placed on the recipient site. The smallest possible sutures are then used to join the graft edges to the recipient site. Some authors recommend 5-0 suture on an atraumatic needle.¹⁵

When the graft is sutured firmly in place, pressure is applied to the graft for approximately five minutes. This will displace any blood that has collected between the graft and the recipient site. The plasma between the two tissue surfaces will be converted to fibrin and this fibrin clot will initially anchor the graft to the underlying tissue bed.

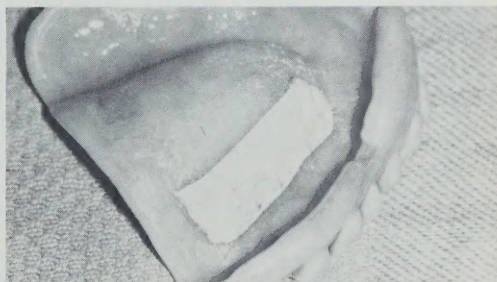
The graft is then covered by rubber dam material or foil and a periodontal

dressing is placed over the area. The intervening rubber dam or foil resists shearing movements which could disturb the graft, and the periodontal dressing aids in firmly adapting the graft to the recipient site.¹⁵

The use of a cyanoacrylate tissue adhesive has also been reported for attaching the graft to the recipient bed. Care must be taken to prevent the tissue adhesive from becoming incorporated between the graft and the bed as slow exfoliation of this material has been reported.⁵

A pre-suturing technique for free autogenous soft tissue grafts has also been reported. Sutures were placed in the lateral borders of the graft before it was separated from its periosteum. The authors state that this procedure is necessary for proper graft handling.¹

Post-Operative Care.



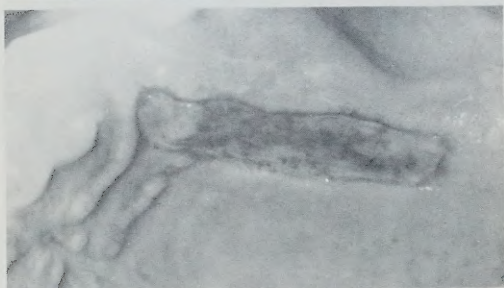
*Upper: Dressing placed
Lower: Dressing for donor site*

The patient is requested to refrain from exaggerated facial movements to minimize the chance of moving the graft and tearing the newly forming capillary buds. At approximately six days post-

operative the dressing and the sutures are removed and the area is re-dressed with periodontal dressing for five more days.

The first dressing change must be done carefully and gently, as rough handling could cause graft movement and tearing of the newly forming capillaries.¹⁵

Graft Healing.



Upper: Graft, one week post-operative

Center: Donor site, one week post-operative

Lower: Graft, three weeks post-operative.

Histologic studies have shown that 10.5

weeks is sufficient time for complete healing of intermediate thickness grafts but that sixteen weeks may not be long enough for the complete healing of thick grafts.⁹

During the period before vascularization of the graft occurs, its survival depends on the diffusion of metabolites from the connective tissue bed of the recipient site. This early diffusion process which is similar to the process whereby epithelium exchanges metabolites has been termed *plasmotic circulation*.¹⁵ Plasmotic circulation is accomplished by an exudate of plasma, red blood cells and a small number of white blood cells. This exudate forms a fibrin net which is then invaded by granulation tissue.¹²

Capillary proliferation is seen by the end of the first day and by three days there has been some invasion of the graft by capillaries from the recipient bed. Other capillaries anastomose with or penetrate vascular channels in the graft. By eight days an adequate blood supply to the graft is present.

While vascularization is proceeding, an organic connective tissue union begins to develop between the graft and the recipient bed.¹⁵ By the end of the fourth day of healing, this union may be strong enough that the graft cannot be moved or displaced by pressure.

A day-by-day histologic description of the healing of a graft placed at the dento-gingival junction in the premolar region of a dog has been given.⁸

At 0 hours the graft is free of inflammatory infiltrate and the connective tissue is still well organized. At 48 hours the beginning of an inflammatory reaction can be seen. The grafted tissue has a whitish color and the surface epithelium can be easily rubbed off. At this time there is also the beginning of organization between the graft and the recipient bed. At this interface there is organization of a thin fibrin clot, capillary proliferation and multiplication of perivascular reserve cells. Disorganization of connective tissue bundle is seen in the graft and receptor site and around the capillaries. New fibers are beginning to cover the wound area.

At three or four days the graft takes

on a pinkish colour denoting the beginning of circulation, and stereomicroscope studies reveal sluggish blood flow in the graft vessels. At six to seven days the margin of the wound between the graft and receptor site is covered by immature epithelium and poorly organized connective tissue is also seen. At this time the graft is essentially healed but maturation of all tissues continues for several weeks.⁸

Factors Influencing Graft Healing and Take

Many factors enter into the success of the free autogenous soft tissue graft procedure. These include the surgical technique and the complete immobilization of the graft until healing takes place.

Hemostasis of the recipient site is necessary before the graft is placed on the recipient bed. If a hematoma forms at the tissue interface, nutrient diffusion is inhibited and early vascularization is delayed. This will cause necrosis of the graft.

Complete immobilization of the graft is necessary because movement of the graft will tear the newly forming capillaries between the recipient bed and the graft, causing a failure of graft take.

In preparing the recipient site, all muscle fibers and elastic tissue must be removed or the graft, when healed, will be on a mobile base and will not function in the same manner as attached gingiva.

Summary

The free autogenous soft tissue grafting technique replaces procedures used in the past that caused excessive osteoelastic resorption of the underlying alveolar bone and were painful and slow to heal. The use of this technique permits the dentist to treat such conditions as an insufficient zone of attached gingiva, a shallow vestibular fornix and gingival recession. By paying close attention to principles, a reasonable rate of success can be achieved.

Continued research will provide more information as to the healing and behavior of the graft and possibly supply information leading to new uses.

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constructed as a stepping-stone on the staging route to Europe. A Strategic Air Command base was established in 1958 with the completion of the DEW Line.



Frobisher Bay, 1958 and 1970

In 1958 two flags - American and Canadian - flew over the military complex of H-huts. Dog teams fought in front of the H.B.C. store and there were a few scattered government houses around the head of Frobisher Bay. Two nurses, an RCM Police constable, two padres, and a USAF physician and a dentist with civilian counterparts employed by the Federal Electric Company were stationed there. Twelve years later I found a tremendous change in the Eskimo way of life. The discovery of oil in the Arctic and a determined effort by the government to open the North had accentuated the effect of civilization on the traditional Eskimo way of life.

The military have gone but 1,700 people fill streets of government housing and the Department of Transport maintains a modern airport. An eight-story apartment complex for Territorial employees, a three-storey hotel and a modern hospital have been built, and a high school is under construction. One has to search for a dog team. Skidoos, motor bikes, taxis, a Canadian Legion hall, a library and cinemas have completely changed the

face of this settlement which twelve years ago was a simple trading post.

The Royal Tour party left Frobisher in three commercial jets specially modified to allow landing on the gravel strip at Resolute. These aircraft had gravel pans installed under the nose wheels and air jets under the engine pods to keep gravel from being sucked into the engines.

Resolute is an important air terminal in northern Canada because of the meteorological stations in the area. It is also the jumping-off point for the northern-most Arctic islands. It is situated in the south coast of Cornwallis Island on flat tableland over permafrost that goes down 1,600 feet. Temperatures rise above freezing only in July and August. There is a small community of about 125 Eskimos and 100 non-Eskimos, mainly at the airport above the settlement.

We flew from Resolute to the southwest over the magnetic pole and the path of the SS Manhattan earlier this year to the treeline and the MacKenzie Delta administrative centre of Inuvik.

Inuvik, the largest Canadian community north of the Arctic Circle, is a village built on stilts or piles set in the perma-frost on the east side of the MacKenzie River delta about eighty miles from the Beaufort Sea. It lies just inside the treeline in flat-wooded country overlooking the delta, an area of thousands of lakes, channels and patches of land. The tundra starts a few miles to the east. Streets of government houses tend to look ugly and the whole place has a somewhat polluted look. A system known as a "utilidor" combines heat, water and sewage and runs in pipes above ground to the government homes and buildings. There is an impressive igloo-shaped church in the center of the village and a Canadian Forces Station which is visited periodically by a dental detachment from Edmonton. The inhabitants living on streets off the Royal Tour route showed little pride in their homes: broken windows, discarded machinery and garbage all added to an appearance of complete disinterest.

A short jet hop of 670 miles south took us to Yellowknife, south of the Arctic Circle but still deep in the story-book country of Canada's northern frontier. Flanked by some of the richest gold de-



Upper: Native home in Inuvik
Lower: Yellowknife

posits in Canada, Yellowknife - now a city with a road-link to the south - first came into prominence with the gold strike of 1934. It is set amidst some of the most striking wilderness scenery to be found anywhere in Canada. Today Yellowknife is a modern city with paved streets and booming bars where Eskimos, Slavey, Dogrib and Cree Indians, public servants, oil roughnecks and gold miners keep up the Northwest Territories capital's reputation for high, hard living. Huge ravens caw and wheel above the town and annoyed us every morning of our stay. The Royal Family stayed at the Fraser Tower, the first high-rise apartment building in the north. It overlooks Great Slave Lake and the sub-arctic terrain like a "mysterious monolith of a vanished civilization" as a member of the press put it.

Nearby is the headwater of the great MacKenzie River which twists and turns for more than 1,100 miles through the Northwest Territories from Great Slave Lake to the Arctic Ocean. It has been a highway of adventure and commerce for more than 150 years. The Queen honoured the explorer who discovered and travelled the river to the coast in 1789. We landed on a gravel strip cut out of a jungle of scrub growth at Fort Providence, a

beautiful spot with birch trees everywhere and a panoramic view of the mighty MacKenzie from forty-foot banks. The Duke of Edinburgh started a gruelling thirteen-day race by ten canoe teams to Inuvik. The teams used paddles with eleven-inch blades which really move the large canoes. Early voyageurs averaged sixty-five miles a day - the canoe teams were trying for a hundred. The starting point for the race was a floating swimming pool, a covered barge converted for swimming which is towed by a tug to the small settlements along the MacKenzie. The death toll from swimming accidents is very high in the north and to combat this, pools are to be found in most towns. This is a most worthwhile and under-publicized program but typical of the way the officials in the north are meeting the myriad problems facing that young country.

Visiting the Northwest Territories on the Royal Tour brought me into contact with dentists faced with a frightening and growing need for dental care and practicing under next-to-impossible conditions in terms of weather and distance. Demand through education and exposure is increasing but in the vast arc stretching from Frobisher Bay to Inuvik there is only one dentist in each of the hospitals in these two communities. These two dentists are backed-up by a dedicated group of nurses in stations scattered throughout the north. With the aid of a dental chapter in a health manual, nurses provide emergency care for the natives. The liaison officer preparing for the Royal Tour told of his experience of visiting a nursing station and watching the nurse extract an upper tooth from an Eskimo. She hoped that time would permit some twelve cases she had on hand to be seen by the dentist with the tour group.

Further south there are several dentists in private practice. There is a clinic at Yellowknife and dentists in Fort Smith and Hay River. Six dentists are serving a population of 32,000, a dentist/patient ratio better than at least one of the provinces to the south and better than several counties in Ontario. However, faced with the rigors of a harsh climate, natural obstacles, a land mass of 1,300,000 square miles as well as the trying conditions of a frontier existence, one cannot help but be

impressed by the dedication of these health workers in the north.

A University of Wisconsin study conducted on the native population at Wainwright, Alaska, found that Eskimos could be divided into three distinct groups in respect to cavities. The first group, of older people, dates back to a time a few years ago when refined foods were not readily available. The second group, now middle-aged, are nearly toothless due to the easy availability of refined foods. The third or school-aged group has a high caries rate. In Frobisher this third group are rapidly losing their teeth due to the ravages of decay.

In discussions with four of the northern dentists, all agreed that nutrition is the real problem. They indicated that the modern diet available through stores across the north is the main cause of the deterioration of the Eskimos' teeth. Mayhall's study in 1968 would tend to confirm these opinions. According to Dr. Mayhall, "the principal change affecting the dentition during this modernization is a new diet which is extremely different from that which was prevalent only a short time ago, and to which some of the Eskimos living in the more isolated circumstances still adhere". He noted that the tooth decay rate for permanent teeth in Igloodik, Northwest Territories, nearly doubled in those people who had a diet of more than 60% food obtained at the local stores compared with those whose diet is principally food obtained from fishing and hunting seal, caribou and walrus.

Water supplies in Yellowknife, Inuvik and Frobisher have been fluoridated for a number of years, but the candy and soft drinks so readily available and demanded by the natives negate the beneficial effects of the anti-cariogenic agent. One dentist told of 96,000 cans of soft drinks sold over the counter in a community store serving a population of 400 Eskimos in a four-month period. This would average forty gallons consumed each year by each Eskimo. Compare this with the latest Bureau of Statistics information on carbonated soft drink consumption in Canada as a whole, which is approximately twelve gallons per person per year, and one realizes the extent that southern mores have infiltrated the northland.

There are other problems. The native has little appreciation of time. The appointment book has little meaning where life, of necessity, moves much more slowly. Language too is a problem. The parent understands the need for an extraction, but preventive and nutrition counselling appears to have negligible impact.

A short visit permits impressions only, but the need for more "hands" is evident. Mobile self-contained clinics which can regularly serve small, scattered communities across the north are a real necessity.

Although crash educational programs are underway in the Territories school system, it will be several years before native students attain entrance standards for dental schools either as auxiliaries or dentists. It is interesting to note that the first Eskimo is completing his medical degree this year in Manitoba. Evidently one nurse has also graduated but at last report was working in the south. In the meantime, a dedicated few dentists and nurses are providing an emergency service for this northern land. It is to be hoped that before too long, additional hands and facilities will become available.

The significance of the first Royal Tour of the Northwest Territories was not easy to gauge since Indians and Eskimos of the north are not demonstrative. Mr. Menarik, an Eskimo reporter who accompanied the tour as interpreter, said it had impact. He agreed that the problems of Arctic sovereignty and the possibility of hunting grounds being threatened by marine giants such as the SS Manhattan existed, but he pointed out the obvious fact that American energy impresses everyone in the north. Few are aware of the pollution problem and as long as a dependable alternative to the present way of life can be found, the Eskimo has little worry about tomorrow.

The Eskimos now live in protected settlements and those living in the far north in camps send their children south by air to boarding schools. It is a strange transition for the little ones to come from a primitive camp to a building full of modern conveniences and some of them find it difficult when they

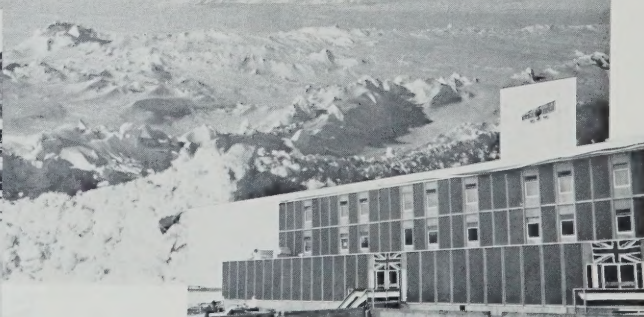
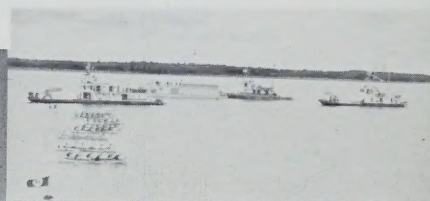
return home. The syllabic language of the Eskimo is dying out. Children are learning English and many cannot write home from boarding school. The resettlement of these remote people is full of difficulties.

The trip provided a glimpse of the fresh and frosty frontier that Canada is determined to defend. That, of course, was the most significant factor underlying the Royal Tour. The Queen was proclaiming Canadian sovereignty over the lands and waters beneath the wing-tips of her plane, and this becomes the sort of evidence that would be pertinent if the subject of Canada's sovereignty ever came before the International Court of Justice.

Nothing could have underlined the government's intentions more clearly than the speech the Queen made in Yellowknife on the eve of her departure for Manitoba. She emphasized the views of the Canadian government in presenting Canada's plans for protecting the north

from pollution as a duty owed not only to Canada but to the world. It was "most important", she said, "to bear in mind that thoughtless meddling and ill-considered exploitation is just as bad as wanton destruction and its side effects can reach out great distances . . . in time as well as over the surface of the earth".

The trip was above all a well-planned delicate exercise, timed to coincide with the Centennial celebration in both the Northwest Territories and Manitoba and to assert Canada's sovereignty over the Arctic. The Governor-General has made a trip in the Arctic and the Prime Minister recently travelled extensively in the north. But such domestic travels have nothing like the impact of the Queen's visit. This journey placed the Royal Seal on Canada's claims and the whole world, we hope, heard about it, because the north is an impressive and valuable piece of real estate to have and to hold.



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(ESKIMO SYLLABICS)

DENTAL OFFICERS TRAINING PLAN GRADUATION



by Captain D.A. Devine.

The Second and Third Phase DOTP graduation parade was held in CFB Borden on 6 August. Following an inspection and marchpast by the graduating class, BGen GC Evans offered a few words of wisdom to these future dental officers. He then presented awards and certificates. 2Lt RA Hunt (1), University of Manitoba, won the Third Phase Honour Cadet trophy; the runner-up trophy went to 2Lt RS Haines (2), University of Alberta. The Second Phase Honour Cadet trophy was won by 2Lt JCRP Larose (sorry, no photo), Université de Montreal and 2Lt KV Hansen (3), University of Manitoba was awarded the runner-up trophy. LCol PS Sills, CFDDSS Chief Instructor, presented the CI's trophy to 2Lt JB Delong (4), Dalhousie University, and the runner-up award to 2Lt DF Graham, University of Alberta.

After the parade, members of the graduating class, the staff and ladies atten-



ded a garden party at the Waterloo Officers' Mess. In the evening BGen Evans was guest of honour at a mess dinner at which the graduating class made some presentations of their own. Capt DA Graham, the Third Phase Course Director was presented with a bottle of cheer and Capt G Pinsonneault received a dozen golf balls. A highlight was the "award" of a box of dog food to Col LG Craigie, Commandant CFDDSS, for being "Top Dog".

8th. Annual CFDS Golf Tournament

by Lt L.R. Hatcher

The CFDS Annual Golf Tournament moved to CFB Trenton this year. It was held on 24th and 25th September and attracted Dental Services personnel from coast to coast - an all-time record turn-out of 100 golfers with 140 attending the presentation dinner. Although fall had officially arrived, the meteorological department at Trenton managed to forecast, with very accurate results, two days of sunshine and warm temperatures over the greens and fairways.

The high-scoring golfers can blame the sounds of thunderous Boeing 707s or the reversing props of Hercs on the adjoining runways.

(Top) Col GR Covey opening the two-day tournament bright and early Thursday, 24 September.

(Right) BGen GC Evans presenting the RCDC(R) Officers' Trophy to the 13 Dental Unit three-man team for the lowest gross aggregate score over 36 holes. (L to R): Cpl GM Anderson and Capt WJ Percival (CFB Trenton), BGen Evans and Capt CW Kearns (CFB Petawawa).

Mr TR Batten displaying the prize he selected for winning the tournament low gross.



Capt Percival receiving the KM Baird Trophy (low gross 36 holes) from Col WR Thompson, CO 13 Dental Unit.

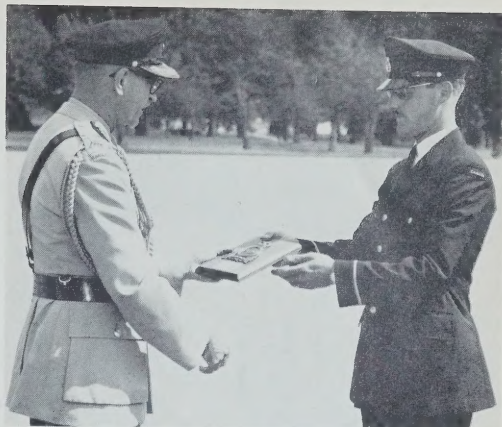
Capt Kearns receiving the GR Covey Trophy from Col Covey for low gross score over 18 holes.





BEST CADET AWARD

Lt JERJ Gauthier, DOTP, received the Best Cadet Award from MGen JWB Barr, Surgeon General, at the Basic Officer Training Course at CFB Chilliwack on 12 August. He carried out the Parade Commander duties in a flawless manner on this occasion.



77 Dental Unit

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by Sgt RS Walker, CD

Unit Headquarters

After many delays, construction of the new unit headquarters in Victoria B.C. has been completed, the offices furnished and fully staffed. The personnel are settled down with their families in "Little California".



Moving from Edmonton to Victoria
.... the hard way.

Personnel

Moving or Removing? Contact CWO John

Greco through this unit. Recently John was moving from an apartment to a house. Driving the moving truck, he backed up confidently to the apartment but unfortunately got too close to an overhanging balcony and neatly removed it ... MWO Stan Robertson has become a Caribooster. He has purchased a four-and-a-half acre ranch near 100 Mile House and plans to spend his remaining years raising cattle. We suggested to Stan that a little bull would go a long way.

Sports

LCol Norm Butcher, Capt Jim Shearer, Capt Frank Margetts, MWO Harold Kirby and Cpl Jim MacKenzie travelled to Trenton for the CFDS Annual Golf Tournament. LCol Butcher was the only prizewinner from this unit, being closest to the pin on a par-three hole.

Our "expert" fishermen are still awaiting their first large salmon catch. They are blaming the Roosians for their lack of sockeye.

Sgt Dick Walker was a member of the CFB Esquimalt soccer team that won the Zone I play-offs in Esquimalt 10-11 September. He is participating in the Canadian Forces soccer championships in Kingston 14-17 October.

Visits

Lieutenant-General Daerr, Surgeon-General of the German Armed Forces and his executive assistant, Major Scheau (Dental), visited the School on their tour of CFB Borden medical and dental training facilities. Major Scheau was briefed by the Commandant, Col Craigie and the Chief Instructor, LCol Sills and by dental officers on the trades training programs. After touring the School, signing the visitors' book and posing for group photographs, the visitors participated in a farewell toast in the Officers' Mess.

New Administrative Officer

In July, Capt FJ Marentette joined the staff of the CFDS as administrative officer.

A native of Windsor, Ont, Fred enrolled in the ROTP in 1963 and graduated from the University of Windsor in 1964 with a BA degree. After training at the RCS of I, he was commissioned and posted to the 1st Bn The Canadian Guards at Picton. He served in Cyprus as a platoon commander and returned to Canada in April 1965. Capt Marentette spent two summers "on the Hill" in Ottawa with the Changing of the Guard troops. During 1967 he was employed as a public information officer for the Canadian Armed Forces Tattoo. He transferred to the RCDC as a dental associate officer in July 1968 and was posted to Borden.

Chief Warrant Officers

Prior to unification, it had been the



CWO WD (Bill) Morris of the CFDS received his warrant scroll from Col LG Craigie, Commandant CFDS.

custom to present warrant scrolls to Warrant Officers Class 1 in both the Canadian Army and the RCAF. This practice is now in force for all elements and introduces a new scroll designed in keeping with the Canadian Forces concept. The warrant scrolls are in recognition of the unique status of Chief Warrant Officers and are a tangible symbol of the special trust placed in them by the Government of Canada and the Chief of the Defence Staff.

Bill's military career began in October 1940 when he joined the RCAF in Brantford, Ont. In 1942 he transferred to the RCDC and served until 1946 when he returned to civilian life and service in the Reserve component of the Dental Corps. He joined the Regular army in Montreal in 1950 and subsequently served as a dental equipment maintenance technician in Ottawa, Petawawa and Borden. Bill has remained with the School since his posting to Borden in 1964.

CWO Morris, with 28 years service, wears among other decorations, the Canadian Forces Decoration with clasp and the Centennial Medal. In 1969 he received the Most Deserving Serviceman award and was a guest of the Canadian Armed Forces on a two-week around-the-world trip.

Since 1 July, CFDSS personnel have been keeping their eyes on a certain CWO who seems to have trouble keeping an ear-to-ear grin from continually being present. The person, of course, is CWO Jack Sadler and the reason is his promotion to that rank.

HEY! HEY! HEY!

For some years now there has been a certain Sergeant Gary Albertson who has traveled extensively throughout the area of 12 and 13 Dental Units disclaiming the virtues of married life and referring to all married couples as "rats". We are therefore happy to announce that this word will be uttered less often in the future as Gary met his Waterloo on 11 September when he was married to Miss Jane MacDonald of St Thomas Ont, at the Base Borden Chapel. Many of the staff of CFDSS were at the reception in the Dieppe Sergeants' Mess to wish the bride and groom all the best as well as

to see a once-staunch bachelor shot down in flames.

Kouldn't Keep Kuepper

Although the additions to our staff are reasonably numerous, we have suffered the loss of valued personnel as have so many other units. This time we must say good-bye to Pte Ilsa Kuepper, who has taken her release to return to university.

Sports

On Thursday 23 July, the annual CFDSS golf tournament took place. Fifty golfers, including staff and course personnel took part in the flogging. The weather was great and the sociality terrific.

Capt Dave Devine and Cpl John Clint finished in a two-way tie with 82s but the tie was broken at the presentation dinner by Col Craigie who flipped a coin in Capt Devine's favour.

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Dental Detachment Cyprus

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Rotation

During August, Capt D Watson replaced Capt T Erskine, Cpl B Kilgrain replaced Sgt Red Kerr and Sgt R Todd arrived in September in place of a "very happy" Cpl

W Mitrikas. The detachment is preparing for a winter on the Mediterranean and rotation of the bulk of the Canadian Contingent.

15 Dental Unit

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WE'VE MOVED!

HQ 15 Dental Unit moved from Atwater Avenue in Montreal to St Hubert Garrison on 6 August. The offices, made available by converting four rooms on the first floor of the officers' quarters, are spacious and the staff is well settled in.

Retirement

When our Chief Clerk (and Associate Editor of The Quarterly), MWO Archie Davison caught himself cheering for "les Canadiens" and "les Expos" he decided it was time to move out of Quebec. His retirement was effective 1 October.

The unit HQ was joined by all CFDS personnel of the Montreal and St Jean areas to bid farewell to Archie and present him with a briefcase to cheer him on his way.



MWO Davison's service dates from October 1941 and his association with the dental services since April 1942. He plans to settle in Belleville, Ont.

13 Dental Unit

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by Sergeant ES Beattie, CD

Grand Opening

BGen ABC Johnston cut a ribbon of dental floss and cloth bandage to officially open the newly renovated base hospital and dental clinic at North Bay.

Summer Activities

It was a busy summer for two corporals: MGE Williams enrolled in Phys Ed and Psychology at the University of Western Ontario summer session and WR McIntosh successfully completed a course in Political Science at Nipissing College in North Bay. Cpl McIntosh is now taking evening courses in Philosophy and Economics at Laurentian University in North Bay ... Sgt P Bosch was not so fortunate; he arrived at North Bay sporting a cast on one leg, broken in an auto accident. This caused his withdrawal from the Clinic Assistant course at CFDS 8 Sep - 7 Oct ... LCol and Mrs RA Fell attended a service at CFB Kingston Protestant Chapel in which the RCDC flag, among others, was dedicated ... WO SH Lunnin received the first clasp to his CD in June ... Cpl(W) Bev Gilkes was on duty at the Canadian Forces display in the Canadian National Exhibition in Toronto during August and September. This was Bev's second year at the CNE - the duty must be tough! ... For seven weeks this summer the North Bay clinic had the services of Miss Lynn Montgomery, a General Arts student at Trent University, Peterborough, employed under the federal student summer employment plan.

Moonlighting

WO SH Lunnin is on the Retirement Committee of the CFB Trenton South Side WOs and Sgts Mess; and also, as a member of the Trenton Branch of the Royal Cana-

dian Legion (Ontario 110 Branch), he is coordinating this year's Remembrance Day parade in Trenton ... MWO RK Jones is Vice PMC of the Headquarters and Services WOs and Sgts Mess in CFB Petawawa.

Sports

MWO RF Matheson coached the Middleton Park Bantam All-Stars to the Trent Valley Minor Softball championships. Richard Matheson was the pitcher. This is the first time the town of Trenton has lost the championship.

The weather ganged up on Cpl(W) BF Breadnor, forcing the fourth and deciding game to be called off in the fifth inning. Before it could be replayed, some of the best players of her team had to leave the area to attend various schools. With substitute players, Barb pitched the four remaining games but lost her championship in softball. However, she walked off with the top prize for the ladies in the recent Dental Services golf tournament.

Capt CW Kearns started his summer by winning the Renfrew and District Dental Society Golf Tournament at Deep River. In a two-day tournament at CFB Petawawa he won a position on the Base team for the Zone 4 championship, played later at Uplands. Also on his list of accomplishments were second low gross in the Annual Medical-Dental Golf Tournament at CFB Petawawa; then, in the Inter-Mess Carling tournament he again won second low gross and with Capt DH Hodges, were members of the Officers' Mess team winning the Base Petawawa championship. Finally, in the BIG one, he won the GR Covey Trophy for first low gross for 18 holes.

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DGDS

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This'n'That

BGen GC Evans and LCol JVP Chatwin were recipients of fellowships at the 30 June meeting of the International College of Dentists in Winnipeg ... Sgt Cliff Millard spent a month in Borden updating his DA trade; he's now trying to attach his typewriter to the chair so he can do a

little clerking in his spare moments ... New arrivals: Capt Ray Peebles and Sgt Carl Schmelzle ... MWO Tom Sullivan is curling again: a three-game winner in the Ottawa Curlodrome open 'spiel in October ... We've heard nothing from those who attended the CFDS Golf Tournament ... not even booby prizes?

14 Dental Unit

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by WO JM Roberts, CD

MYNARSKI TROPHY



"Mayor" Wayne Wilford and the station commander, CFS Gypsumville, accepted the coveted Mynarski Trophy from MGen Lipton on 24 September. The trophy is awarded annually to the PMQ Council that has had the best programs for children.

Personnel

LCol JJN Wright was Co-chairman and Moderator for three scientific sessions at the convention of American and Canadian Academy of Periodontology held in Montreal 16-19 September ... Sgt W Olynky was air-evacuated from Moose Jaw to Cleveland, Ohio on 5 September for heart surgery. He is now back home and recuperating nicely ... On posting, Sgt LH Dion drove his refurbished 1933 Ford half-ton truck from CFB Moose Jaw to CFB Cold Lake. The journey took a speedy 17 hours ... LCol RB Jackson, enjoying retirement at Comox B.C., returned to his old stamping grounds at Cold Lake for the fall duck hunt. They say that the lure of the Alberta ducks is never forgotten.

Sports

CFB Winnipeg (North) clinic personnel participated in a ten mile walkathon on 18 September. The male competitors did not get any worthy mentions but a determined Kay Colleaux placed second among the female participants. Early this summer she spent two weeks at a Churchill Scout Jamboree where she received her training.

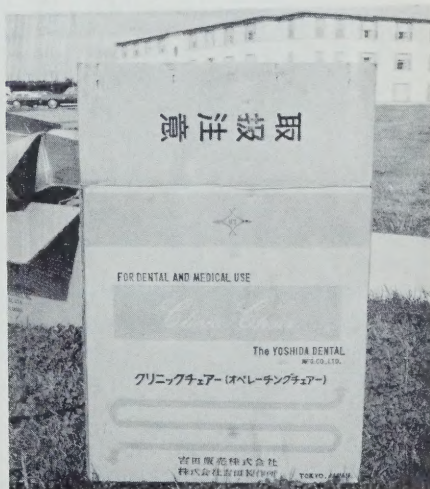
While the Manitoba Centennial Air Show

was a great success in Winnipeg, it incidentally "played hob" with the CFDS Golf Tournament. The faithful Dakotas that usually transport the Winnipeg area dental people to this event were not available because they were committed to the air show. The token unit team that did manage transportation claimed that the tournament was a great success. Maj Headley was chosen as one of this unit's representatives because he had hit the jackpot on the golf trail earlier in the season as third flight winner at the Glenboro Open Golf Tournament on 28 June. Disappointed in his showing at Trenton, he is now reported to be in training for the CFDS curling bonspiel.

Skiers can now add another location to their "preferred posting" list. CFB Penhold in Alberta organized a Base Ski Club with Cpl Armin Busse as one of the originators and now a committee member.

Rotsa Ruck

The recent renovations being carried out in the CFB Cold Lake clinic have not gone unnoticed as illustrated in the photo and caption published by the CFB Cold Lake Courier.



"The photographer who captures 'matters that don't mean a damn' came across this interesting article. It was found outside the barrack block where the dentists are busy expanding their company into a battalion. It's a box that was used to ship a dental chair...."

35 Field Dental Unit

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by Sergeant CWJ Powell, CD

AIR DIVISION CLOSES

At 1030 hours, 1 July 1970, the awaited day arrived. Overcast skies and early morning rains necessitated the cancellation of the parade plan and the alternate use of the Arrowhead Area for the ceremonies. Many military personnel and their families were at the Arena for the forming up of the Guard of Honour, the Colour Party and the combined Land and Air elements on parade.

At 1100 hours the Parade Commander announced the arrival of the Minister of National Defence and other distinguished guests. The perfectly timed fly-past, performed by 422 Squadron of 4 Wing complimented the General Salute, expertly played by the PPCLI Band from Soest.

At 1102 hours Mr Cadieux inspected the parade, accompanied by the tune "Rain Drops Falling On My Head". Cameramen vied with each other for the prime picture-taking vantage points to ensure the best coverage of this moving event.

The Handover ceremonies took place at 1105 hours at tables positioned on each side of the saluting base where the Commander 1 Air Division handed over command to Brigadier-General MF Doyle, CD, Commander 1 Canadian Air Group; and the Commanding Officers of 1 Wing, Colonel AJ Pudsey, CD, and 4 Wing, Colonel FJ Kaufman, CD, handed over their Crests to Major-General DC Laubman, Commander Canadian Forces Europe. At 1110 hours, to the echoing strains of "Green Fields" played by a lone piper, the respective Pennants were presented to the departing commanders.

At 1113 hours General Laubman addressed the audience and welcomed the distinguished guests: Lieutenant-General Walsh (retired), the first commander of the Land element of post-war forces in Europe; Air Marshall Campbell, first Air element commander and General FR Sharp, Chief of the Defence Staff. Mr. Cadieux was warmly welcomed by General Laubman, who voiced thanks on behalf of all military personnel in attendance. Mr Cadieux then stepped to the dias and addressing the audience, explained the reasons for the new European posture and once more confirmed his confidence in his military

members in Europe. At 1129 hours the final General Salute was heard and the Minister, with his dignitaries, filed past the spectators and out of the arena.

It took just thirty minutes for 35 Field Dental Unit to end eighteen years of service with 1 Air Division and commence service with Canadian Forces Europe.

In the afternoon, a garden party was held at the Black Forest Officers' Mess to honour the Minister and distinguished guests.

1 Wing Fiesta

1 Wing held a close-out fiesta 22 to 24 June as part of the festivities on the disbandment of 1 Air Division. A German beer tent was in operation and many members of the unit enjoyed the various floor shows. At 1345 hours on 24 June a farewell parade was held after which champagne was served to all in attendance.

Conferences

LCol DH Protheroe, Majors CJM Boston and JD McCallum, Cpts VJ Lanctis and EG Schroeter attended the US Army Europe Annual Dental Training Conference at Garmisch, 23 to 25 September.

Personnel

Sgt Ian MacLean was appointed Bar Officer and Sgt Clare Powell the Assistant Secretary of the Lahr WOs and Sgts Mess 1 October ... A moustache-growing contest was started at the Lahr clinic in September. The contest will continue until the unit Christmas party when the contestants will be judged for the best moustache ... Pte (W) SAF McEllistrum married Cpl FW Nield in London, England, on 14 July. After their honeymoon, Pte (W) Nield took her release from the services.

Sports

On 21 August a softball game was played between the Laehr and Baden Soellingen clinics. Baden came out the victors with a score of 14-12 ... The "A" Sgts Mess in Fort Chambly sponsored a golf tournament on 28 August with CFB Soest detachment personnel participating:

Major EF Foley, WO JV Minnelli and Sgts RA Garnhum, MJ Hall, TR Kukurudziak and WL Wylie. WO Minnelli came through the tournament with third low gross. In the evening, a Bar-B-Q and dance was held for the golfers, members of the mess and their wives.

12 Dental Unit

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by Sergeant GR Jennings, CD

Visits

BGen Garth C Evans and Maj MN Deyette visited this unit from 13 to 23 October. The itinerary for the DG's first visit to Atlantic Canada included CFB Cornwallis, CFB Greenwood, CFS Gander, CFB Galetown and CFB Halifax.

Seaborne Dental Van

The Sea element of the Canadian Forces is now the proud owner of two multi-million dollar supply ships. These vessels are complete to the smallest detail except for dental clinics. After some local negotiation, the decision was made to loan HMCS Protecteur a mobile van. Capt ET Dalzell and Pte D Bowering travelled in Arctic waters in August followed by Capt Dalzell and Cpl G Hildebrandt on a trip to the United Kingdom. The van was secured in the forward part of the helicopter hangar which is large enough to house three Sea-King choppers.

Steps are now being taken to convert

a space beside the sick bay into a permanent clinic.

KING is KING!

"Pat King pitches one-hitter"... "Pat King big gun at the plate"... "King leads Junior Ranks Club to another victory"... "King hurls another winner"... These were the sports headlines in the local papers during the past summer. All refer to our Air element clerk Pte Pat King, the boy from Newfoundland. Hardly a week went by that there wasn't a story about King in the sports pages. Finally the local league decided that Pat was too strong for his league and decided to move them out on their own. This left the team by themselves with no one to compete against. At this stage Pat decided to play for Base Halifax in the Zones 7 and 8 play-offs; once again he was a hero and ended the tournament by winning the batting championship.

7 Dental Unit

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by MWO EE McFadden, CD

The Hard Way!

We have a real pioneer in the person of Cpl Rick O'Dell. On arrival from the east coast and evaluating the housing situation in Ottawa, he decided to build his own home. Rick purchased a few acres about fifteen miles outside of Ottawa and is now laying cinder blocks for his basement. With the help of

friends, he hopes to have his home completed before winter.

Golfing

MWO Colleen Torrens won the Major Gazo Trophy in the annual golf competition by medical and dental personnel in the Ottawa area. The trophy was donated by family and friends of Major Ed Gazo who died in 1968.

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Professional Training

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University of Toronto

Major HS Wood ... *Diploma course in Dental Public Health, September 1970 to July 1971.*

US Army Institute of Dental Research, Washington DC

Major DG Jones ... *Periodontics to certification level (first year of a two-year course), August 1970 to August 1971.*

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Canadian Forces Training

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Canadian Forces Dental Services School, CFB Borden

Complete Dentures, 14 to 28 October

LCol GE Windsor, Major HK Misenor, Cpts RG Kerr, WJ Percival, PA Wood, HW Wilford.

Phase 2 Dental Officers Training Plan, 13 July to 7 August

2Lts CC Croll, KV Hansen, WJ Jury, MM Kropinak, LJRP Larose, JB Maurice, DM Moore, BE McPhee, R Orenzyuk.

Phase 3 Dental Officers Training Plan, 10 June to 7 August

2Lts GR Bowes, DFM Clark, JB Delong, DF Graham, RS Haines, PD Higgins, RA Hunt, TA Rawlyk, EF Sasse, DM Spencer, PW Williams.

Dental Assistant PL6 Course, 8 September to 7 October

Sgts JA Atherton, WR Dawson, CC Millard, RK Delmage, PJ Armstrong, Sgt(W) D Ellis, Cpls PR Coss, MGE Williams, J Muir, GJ Gallagher, DW Griffiths, TV Girdlestone, DG Allen, PJ Mehler, Cpls(W) MN Boles, ME Mahlitz.

Canadian Forces Staff School, Toronto

Junior Staff Course, 14 September to 20 November

Capt EM Lobb

Canadian Forces School of Instructional Technique, CFB Clinton

Instructional Technique Courses:

Capt DA Graham	24 August to 10 September
MWO KE Lawrence	14 September to 25 September
Cpl EJ Schultz	14 September to 30 September.

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Promotions

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Major: W Budzinski, JE Stansfield, WD MacKenzie, JA Fortier, VJ Lanctis;

CWO: JH Sadler; Sgt: BF Hannah; Cpl: RA Gaylor.

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Honours and Awards

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Dental Officers Training Plan Graduation, CFB Chilliwack

Capt FR Margetts ... Alberta Dental Alumni Association, Dr HE Bulyea Scholarship.

Queen's Honorary Dental Surgeon: Col LG Craigie

Fellow of the International College of Dentists: BGen GC Evans, LCol JVP Chatwin.

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Welcome to the Dental Services

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A cordial welcome is extended to Mrs E Whaley, Pte DD Tasker, Cpl PE Sutherland, Capt FJ Marentette, Mrs Clara Rathbone, Pte(W) PD Duncan, Pte(W) CC Johnston, Pte(W) PJ Searle, Pte(W) PD Young, Pte DF Curtis.

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Retirements and Releases

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Farewell and good luck to Mrs KS Hennan, Miss Anne Loucks, Cpl DC Feeney, Pte(W) MA Chapman, Sgt G MacCuish, Capt JF Mullins, Miss JF Loring, Mrs MW Smith, Pte(W) I Kuepper, Cpl S Gagnon, Sgt RL Thornton, MWO AF Davison.

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vital statistics

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Marriages

Congratulations and many years of happiness to Miss Joan Isfeld and Cpl RE Pockett ... Miss Gisile Oriette Lebreux and Cpl JG Bernier ... Miss Margaret Evelyn Rogers and Capt MS Bouris ... Pte(W) SAF McEllistrum and Cpl FW Nield ... Miss Diana Lee Robinson and Capt HV Ferber ... Miss Andrees Marie Renaud and Capt MW Freedman ... Miss Jane MacDonald and Sgt GG Albertson ... Miss Margaret Isobille Matson and Sgt D Smith ... Miss Francine Giroux and Capt JR Laberge ... Miss Linda Mary Cook and Capt GP Greenacre ... Miss Rosalind Ann Margaret Flynn and Cpl RA Gaylor.

Births

Congratulations and may the next ones be twins:

Boys: Sgt and Mrs A Pink ... Sgt and Mrs WE Tweed ... Sgt and Mrs H Chamberlain.. Cpl and Mrs J Van Hemert ... Capt and Mrs YJA Gagnon

Girls: Cpl and Mrs DP Kurbis ... Cpl and Mrs JF Butson ... Cpl and Mrs RM Clarke.. Cpl and Mrs JL Frechette ... Major and Mrs FGC Arpin ... Capt and Mrs BP Schow ... Capt and Mrs CW Kearns ... WO and Mrs J Dion ... Sgt and Mrs CS Brown ... Cpl and Mrs RG O'Dell ... Major and Mrs WD MacKenzie

Condolences

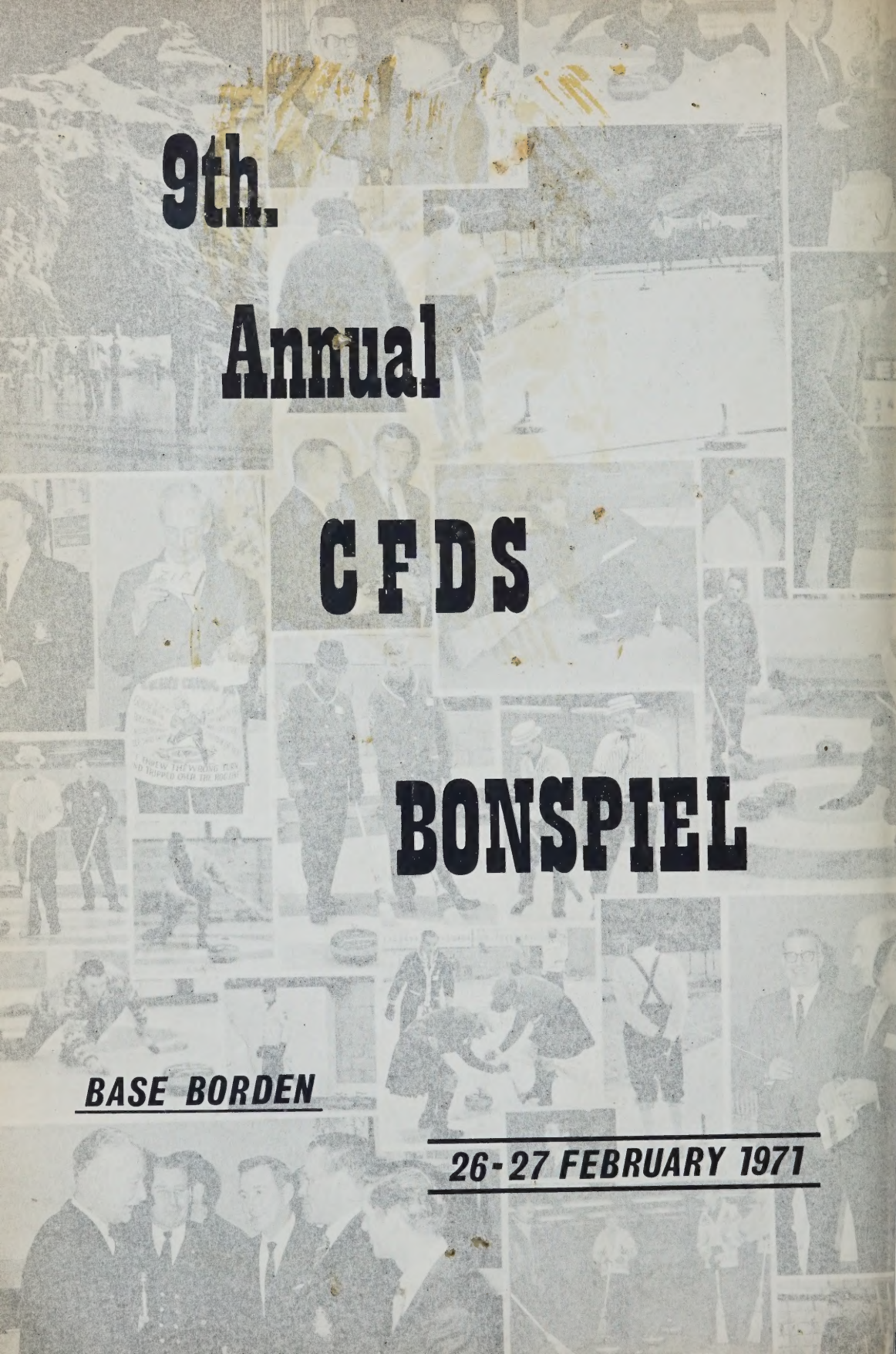
Sincere sympathy is extended to Major CJ Sivell on the loss of his father.

In Memoriam

Colonel Charles Bryce Hannay Climo, DCM, ED, CD, DDS, FICD, died in Ottawa 26 October 1970. All members of the Corps mourn his passing and extend sincere sympathy to his family.

Col. Climo was born in Saint John, N.B. 8 April 1897. He served with the Canadian Expeditionary Force from 1916 to 1919 and in the Non-Permanent Active Militia with the 1st. Halifax Coast Brigade from 1922 to 1939. He graduated from Dalhousie University in 1923. Col. Climo commenced active service with the Canadian Dental Corps 1 September 1939 and was Deputy Director General of Dental Services when he retired in October 1957. After retirement, he practiced as a civilian dentist for the Department of National Defence and was employed at Canadian Forces Station Gloucester at the time of his death.





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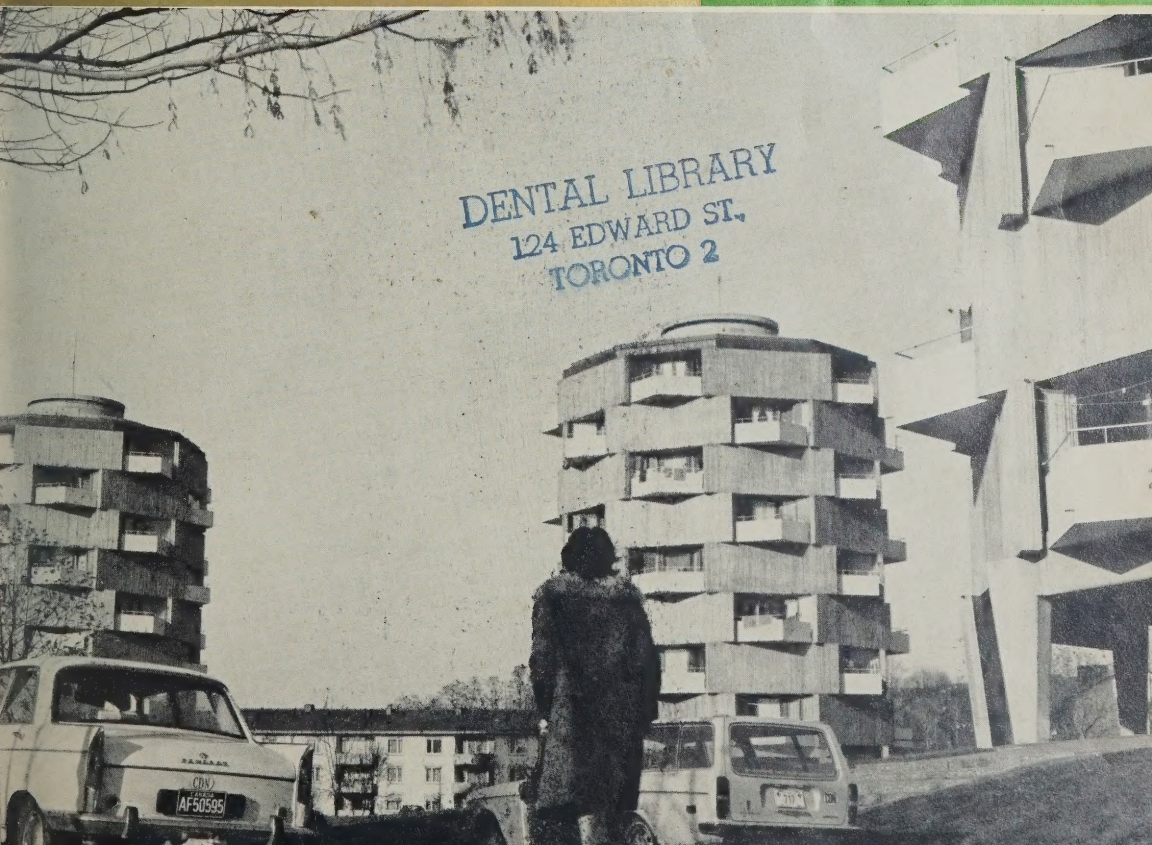
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Married Quarters, Lahr

Back: Capt RF Cooper, CFB
Gagetown Dental Clinic
and patient

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In Memoriam

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†

Brigadier-General Elgin McKinnon Wansbrough, OBE, MM, ED, CD, DDS, FICD, FACD, Colonel Commandant of the Royal Canadian Dental Corps, died in Ottawa on 20 December 1970. All members of the Canadian Forces Dental Services mourn his sudden passing and extend their deepest sympathy to his wife and family. His leadership, dedication and contributions both to military dentistry and to the esprit de corps will be remembered by those who served with him in the Canadian Forces.

General Wansbrough was born at Amaranth, Ontario, on 29 October 1898. He served in the Canadian Machine Gun Corps from 1916 to 1919 and was awarded the Military Medal. He received his dental degree from the University of Toronto in 1923. He was commissioned and served with the Lorne Scots (Peel, Dufferin and Halton Regiment) from 26 July 1927 until transferring to the Canadian Dental Corps on 27 October 1939.

General Wansbrough was appointed Commanding Officer, No. 2 Company, Canadian Dental Corps on 1 February 1940 and later served as the Command Dental Officer, No. 1 Training Command, R.C.A.F. After arriving overseas in August 1942, he was promoted Colonel and appointed Assistant Director of Dental Services, R.C.A.F. He returned to Canada in August 1945 and after a year as Deputy Director of Dental Services (Air) at National Defence Headquarters, he was appointed Director General of Dental Services in September 1946, an appointment he held until his transfer to the Retired List in October 1958. He was promoted to the rank of Brigadier in August 1951 and appointed Queen's Honorary Dental Surgeon in June 1953.

After retirement General Wansbrough continued his active support of the Corps. He was an honorary life member of the R.C.D.C. Association and its Honorary President from 1959 to 1962 and since January 1965 was the Colonel Commandant of the Royal Canadian Dental Corps. Annual competition for the Wansbrough Trophy at the C.F.D.S. Bonspiel will continue to perpetuate his memory.

General Wansbrough is survived by his wife Essie, two daughters, two sons, a sister and two brothers. Interment was at Orangeville, Ontario.

A PANORAMIC RADIOGRAPHIC STUDY OF 997 CANADIAN ARMED FORCES RECRUITS

LIEUTENANT-COLONEL J. M. DONELY, CD, DDS.



Panoramic films lack some of the definition of periapical radiographs and have some inherent distortion but they also contribute information which cannot be obtained by other conventional means.

The taking of panoramic radiographs as part of the Recruit Preventive Program was introduced at CFB Cornwallis in early March of 1970 replacing the routine bite-wing films which had been used to that time as an aid in recruit treatment classification.

Accordingly it was decided to carry out a study to determine exactly what type of information could be derived from this procedure and at the same time provide some statistics that might be valuable in assessing the dental requirements of this sector of the Armed Forces.

The study covered four months and 997 recruits ranging in age from 17 to 31 years with an average age of 18.2 years formed the sample population.

Findings

The findings reported here and tabulated in Table 1 were made from the radiographs only. No reference was made to the clinical examinations as recorded on the individuals' DND 422 Dental Records.

Dental Caries

With the overlapping of proximal surfaces mainly in the bicuspid areas (Figure 1), and the somewhat poorer definition of these films compared to the standard periapical radiographs, carious areas are usually observed only when

Table 1. Conditions Revealed by Radiographic Survey

Findings	Recruits	No. of Instances	% of Recruits
Caries	774	-	77.6
Periodontal Disease	12	-	1.2
Missing Teeth	659	-	66.0
Impactions	715	1,917	71.7
Periapical Radiolucencies	145	206	14.5
Radiolucent Lesions	254	513	25.5
Radiopaque Lesions	37	37	3.7
Retained Roots	48	61	4.8
Retained Deciduous Teeth	34	52	3.4
Restorative Overhangs	72	77	7.2
Supernumerary Teeth	19	22	1.9
External Root Resorption	23	34	2.3
Foreign Bodies	11	-	1.1
Sinus Disease	8	-	0.8
Endodontically Treated Teeth	25	29	2.5
Soft Tissue Calcification	-	-	-
No Operative Treatment	217	-	21.8
Abnormalities Absent	21	-	2.1

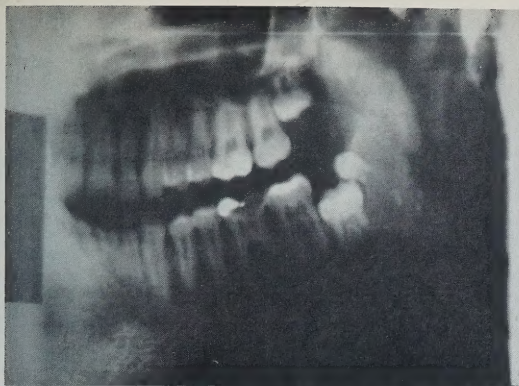


Figure 1. Overlapping in bicuspid area and impacted lower third and fourth molars.

they have made extensive incursions into dentin. Even so, caries were demonstrated in 774 (77.6%) of the recruits. A great many of these lesions appeared to involve the dental pulp.

Periodontal Disease

With the age group being considered, it was anticipated that there would be a low incidence of periodontal disease characterized by bone loss. This proved to be true with only 12 cases (1.2%) observed. As might be expected, the areas most frequently involved were the lower anterior and first and second molar regions. No cases of generalized bone loss were found.

Missing Teeth

The numbers of missing teeth are shown in Table 2. This provides graphic evidence of the replacement problem that exists in the recruit population. Only

Table 2. Number and Percentage of Recruits by Number of Teeth Missing

Teeth Missing No. of Recruits Percent

None	338	33.9
1	157	15.7
2	163	16.3
3	94	9.4
4	84	8.4
5 - 10	106	10.6
11 - 15	16	1.6
16 - 20	30	3.0
21 - 25	3	0.3
26 - 31	4	0.4
32	2	0.2

338 (33.9%) had a full complement of teeth. Of interest, even in those cases when one or more complete dentures were worn, almost invariably impacted third molars were present.

Impactions

All teeth that appeared to be restricted in eruption by either soft tissue, bone or adjacent teeth were classified as impactions.

Impacted teeth were observed in 715 (71.7%) of recruits. Table 3 shows the distribution of the impactions observed.

Table 3. Impactions

<i>Teeth Involved</i>	<i>Upper</i>	<i>Lower</i>
Lateral Incisors	1	-
Mesiodens	5	-
Cuspids	10	3
Second Bicuspids	5	4
Supernumerary Bicuspids	1	2
Third Molars	941	943
Fourth Molars	1	1

Periapical Radiolucencies

206 separate radiolucencies were observed in 145 (14.5%) of recruits. Almost 100% of these areas could be attributed to neglected caries. An exception is demonstrated in Figure 2.

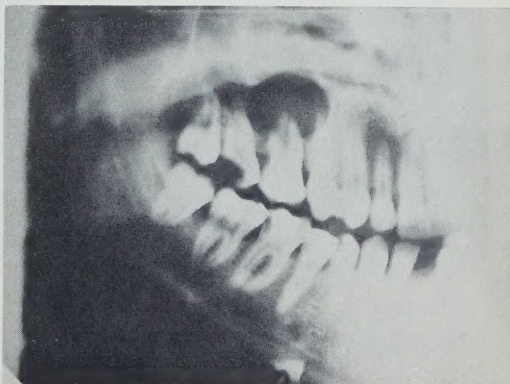


Figure 2. Radicular Cyst.

Radiolucent Areas (Other than Periapical)

A total of 513 areas were found in 25.5% of recruits. Most were follicular enlargements associated with unerupted teeth. Several were probable apicoec-

tomy sites. One globulo-maxillary cyst (Figure 3), and one cleft palate were observed.



Figure 3. Globulo-Maxillary Cyst.

Radiopaque Areas

37 separate radiopacities were noted in 3.7% of recruits. The majority consisted of condensing osteitis associated with carious teeth or teeth with deep restorations. A few cases of osteosclerosis and hypercementosis were found, plus one composite odontoma (Figure 4).

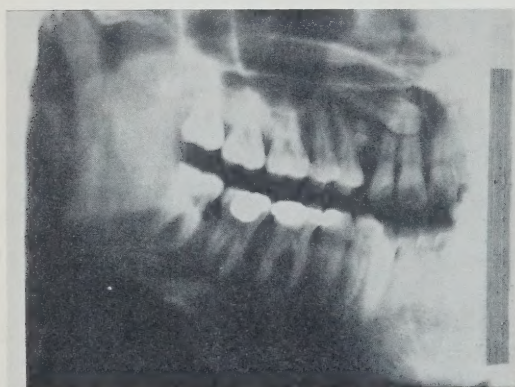


Figure 4. Composite odontoma and impacted cuspid.

Retained Roots

61 retained roots were seen in 48 individuals. These usually were the result of advanced caries rather than poor surgical technique. The most common site, as one might expect, was the first molar area.

Retained Deciduous Teeth

52 deciduous teeth were found in 3.4% of recruits. The majority were cuspids and second molars.

Restorative Overhangs

Again because of the overlapping of proximal surfaces, this problem was difficult to discern, but 77 examples were clearly demonstrated in 7.2% of recruits.

Supernumerary Teeth

These were observed in 1.9% of the individuals and consisted of six lower bicuspid, one upper bicuspid, five mesiodens, seven upper lateral and one lower lateral incisors, one upper fourth molar and one lower fourth molar (Figure 1).

Other Findings

No abnormalities were noted in 21 (21.1%) of the sample. 217 (21.8%) recruits showed no sign of ever having received restorative treatment.

27 anterior and two posterior endodontically treated teeth were observed.

External root resorption was noted on 34 teeth of 2.3% of the group. No internal resorptions were seen.

11 cases of foreign bodies were counted, all of which appeared to be amalgam inclusions.

Cloudy sinuses compatible with maxillary sinusitis were observed in eight individuals.

No evidence of soft tissue calcification was noted.

Discussion

As was discovered in a somewhat similar study carried out at the 109th annual session of the American Dental Association at Miami Beach in 1968 using 1,415 attending dentists as the sample population, this diagnostic service provides a clearer insight into the dentofacial region. Because of the difference in age range no meaningful comparison can be made.

Over the years, the dental health of Armed Forces recruits has shown a steady improvement. This study confirms that the dental condition of recruits on en-

rolment presents a heavy treatment commitment.

In addition to the prosthetic and restorative treatment needed, the number of impactions previously recorded as missing teeth is noteworthy. From appearances, because of angulation and/or location, well over 60% of lower third molar impactions would require extensive surgical procedures (sectioning), if their removal were to be contemplated.

Although many radiolucent areas were observed, the lack of extensive areas of destruction due to cystic formation or neoplastic invasion is reassuring.

Of interest, when the Dental Records of the recruits involved in this study were classified, 59 (5.9%) were dentally fit for service employment (Red code), 682 (68.4%) required less than three hours of treatment (Blue coded) and 256 (25.7%) required extensive treatment (Yellow coded).

Summary

A dental panoramic radiographic survey was made of 997 Canadian Armed Forces recruits. Findings were reported.

The panoramic radiograph is excellent as a screening device. It provides views of the body and rami of the mandible, temporo mandibular joints and other anatomical features that were not included in a fourteen-film full mouth survey.

However, when diagnosis and treatment planning are required, other views are almost invariably required because of the inherent shortcomings associated with the use of this diagnostic aid.

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Cuttino, Charles L., et al. *Panoramic survey of dentists: interpretation of findings.* Am. Dent. A.J. 79:1179-1182, November 1969.

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A CASE REPORT:

IMPACTED MAXILLARY FIRST MOLAR AND ITS' REMOVAL FROM THE MAXILLARY SINUS

CAPTAIN T.C. RINGLAND, DDS.



A 24-year old pilot presented to base hospital complaining of a painful ache in his left ear. After a thorough ear examination, the findings of which were negative, the patient was referred to the dental clinic. The pain had persisted for three days and was not related to altitude changes encountered while flying.

Oral Examination

The gingival tissues and oral mucosa were normal. Teeth had been extracted in the past and the remaining dentition was in a caries-free state. With the aid of past radiographs it was confirmed that the mandibular third molars had either been removed or had erupted uneventfully. Three maxillary right molars were in functional occlusion but only two molars were visible in the left maxilla.

Radiographs

Periapical radiographs were taken in an attempt to locate either an impacted left maxillary third molar or an impacted left mandibular fourth or paramolar, either of which could cause referred pain to the auricular area. The search for such impactions was unsuccessful.

Additional periapical radiographs showed a vertically impacted maxillary left first molar located one inch superior to the plane of occlusion between the second bicuspid and the second molar (Figure 1). An extraoral periapical view of the skull located the major portion of this tooth within the sinus although its crown extended through the inferior border of the maxillary antrum (Figure 2).

A deep periodontal crevice extended apically to involve the crown of the

impacted tooth resulting in extensive decay of this crown.

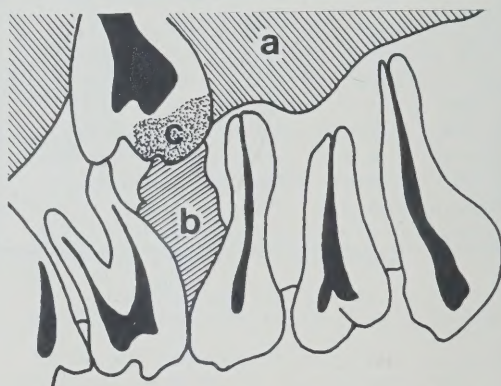


Figure 1. Sketch from periapical X-ray showing relationship of impacted crown to sinus and adjacent roots. (a) Maxillary sinus. (b) Periodontal pocket. (c) Decayed portion of crown.

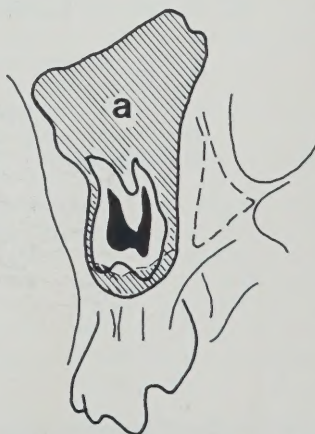


Figure 2. Sketch from P.A. skull radiograph. (a) Maxillary sinus.

The Operation

A posterior-superior alveolar block injection combined with two anterior infiltrations provided adequate buccal anaesthesia. Palatally, a posterior palatine injection was administered. To ensure adequate exposure of the site, a muco-periosteal flap extending from the third molar anteriorly to the cuspid area was raised. The incision line was extended apically in the cuspid area to minimize soft tissue stretching.

A plate of buccal cortical bone approximating the width of the carious crown was removed using a surgical bur and saline irrigation. The crown was then sectioned horizontally using the airtor with water. The sections were easily removed buccally through the prepared window. A curved hemostat was inserted into the sinus and locked around the remaining base of the crown. Using the buccal plate as a fulcrum, the hemostat held the tooth tightly to the lateral wall of the sinus while the two roots were sectioned. Both remaining fragments were removed by suction. The edges of the buccal window were filed smooth and the periodontal pocket between the bicuspid and the molar was well curetted. The flap was repositioned using intermittent 000 silk sutures.

Medication and Instructions

Follow-up antibiotic therapy consisted of cloxacillin sodium (Orbenin Oral),

500 milligrams three times a day for five days. Propoxyphene HCL (Darvon 65 Compound) was prescribed to minimize post-operative discomfort. To reduce the chances of flap failure and a possible antro-oral fistula formation, the patient was instructed to sneeze via the mouth and to refrain from violent nose blowing.

Cold applications to the side of the face were continued intermittently for 24 hours.

Post-Operative Course

Swelling occurred 48 hours after surgery and subsided on the same day. Pain was well controlled by the prescribed analgesic.

Two sutures were added to the semi-vertical component of the flap to ensure optimum reattachment.

On the seventh day all sutures were removed after which time the patient reported no discomfort even when wearing his high altitude oxygen mask.

During the most recent dental examination, seven weeks after surgery, the area was healthy although a slight recession of the marginal gingivae resulted in the second molar being sensitive to brushing. A toothpaste containing 10% strontium chloride (Sensodyne) was prescribed. To date, the earache has not recurred.

Consultant's Comments

COLONEL W.R.THOMPSON, CD, DDS.

Capt. Ringland's article presents an interesting and unusual case history. The maxillary first molar, although at times depressed, is seldom impacted or deeply embedded. Another unusual feature is the absence of oral signs or symptoms (pain, infection, etc.,) especially when the crown of the tooth is partially in the sinus and partially connected with the oral cavity.

The extensive decay of the crown is somewhat suggestive of external resorption. Worth* states: "Teeth which remain embedded long after the normal time for eruption often undergo external resorption. Any buried tooth may undergo this resorption but the upper cuspid is most commonly involved; the lower third molar is probably next in frequency but is not a common abnormality".

*Worth, H.M. *Principles and practice of oral radiologic interpretation*. Year Bk. Med. Pub., 1963, p. 172.

A PERIOD OF CHANGE:

35 FIELD DENTAL UNIT, 1965 - 1970

LIEUTENANT COLONEL D.H. PROTHEROE, DFC, CD, DDS, MPH.



In 1965*, 35 Field Dental Unit Headquarters was located in Metz, France, with clinics at Air Division Headquarters, Metz; 1 Wing at Marville, France, 3 Wing at Zweibrücken, Germany and 4 Wing at Baden Soellingen, Germany. There were also part-time clinics in London, England and at the RCAF Air Weapons Unit, Decimomannu, Sardinia. This set-up generally prevailed until 1967 when the situation with regard to NATO in France changed dramatically.

Move from France

In August 1966, General Charles De Gaulle, President of France announced that NATO bases in France would be closed by 1 April 1967. LCol John Brick was Commanding Officer of 35 Field Dental Unit at that time and during the move. His comments were:

"Following long diplomatic negotiations which were mainly conveyed to us through the newspapers, the Canadian Forces were given the word to leave France by 31 March 1967. This caused a flurry of activity at Metz with teams going out in search of suitable bases. This, of course, was complicated by the fact that the American Forces were also leaving France. Any chance whatever of sharing existing facilities with US Forces in Germany was precluded.

During these periods of negotiations no planning was possible in 35 Field Dental Unit other than to reduce stocks, work out any early rotations necessary and to keep abreast, in general, of developments. It began to appear that the bases in France would consolidate and split up between Zweibrücken and Baden Soellingen with the air head in

another region. About this time, the use of the French base at Lahr was discussed.

After a long period of hard bargaining and dogged persistence on the part of the Air Division, agreement was reached that we would move into Lahr. This caused a flood of people on "recce" to the new base only to find that the base commander restricted entry. After long negotiation, the Regional Surgeon and CO 35 Field Dental Unit eventually made it into the camp. They were met by the French senior medical officer who talked to some extent about facilities and then all went to lunch. It was obvious that lunch was intended to extend throughout the afternoon but the issue was forced and the French agreed to show us the hospital. The dental wing of the hospital was not in use as the roof had collapsed, so consequently a building built by the US Air Force and later abandoned was accepted as all other accommodation on the base was committed.

Accommodation for 35 Field Dental Unit HQ and stores eventually was obtained in the Menard Caserne. This accommodation was most inadequate, dirty and without any alternative. The staff pitched in, scrubbed and waxed, built shelving and kept the unit going without interruption of the service to clinics.

Personal accommodation was not available. Everyone lived and ate at German hotels. Each weekend the trek to Metz and back took place. It was at this stage that LCol DH Protheroe assumed command of the unit."

*Editor's note. Preceding articles in The Quarterly: An Introduction to 35 Field Dental Unit and Its Environs by Col GR Covey, Vol. 1, No. 1, April 1960 and A History of 35 Field Dental Unit by Col LG Craigie, Vol. 6, No. 2, July 1965.

The new commanding officer was fortunate in that his predecessor had obtained suitable accommodation for the clinic at Lahr but he was faced with the task of having the accommodation suitably renovated in the face of competition by many other priority projects. It was several months before this clinic was fully operational. Consequently the demand for treatment by service personnel and dependants became extremely heavy.

During this period much needed renovations were also being carried out in the clinic at Baden Soellingen.

The situation regarding living accommodation for families was critical. Many personnel had their families in tents, trailers and hotels around Lahr; others remained at Metz. Fortunately, the summer of 1967 was beautiful and camping was not the hardship it would have been in cool, rainy weather. Ready-made married quarters for occupancy was slow because of the poor condition they were left in by the French air force and it was not until the end of September 1967 that all unit personnel had a roof over their heads, although in some cases this was temporary.

Accommodation for unit HQ and the stores section was offered and accepted in an excellent building at 1 Wing but it was subsequently decided that the unit HQ should remain with Air Division HQ and suitable space was occupied in April 1968. The unit was now fully functional as far as the Air Division was concerned.

New Clinics for SHAPE and AFCENT

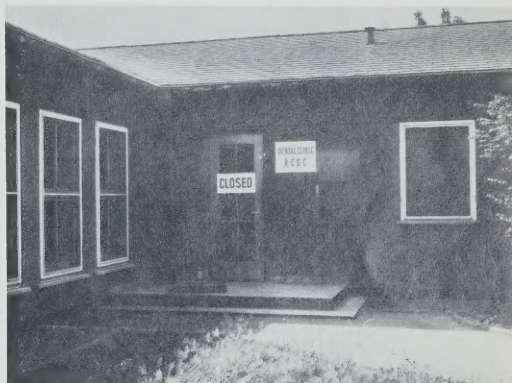
Most of the spade work for opening clinics at Supreme Headquarters Allied Powers Europe at Casteau, Belgium, and Allied Forces Central Europe Headquarters at Brunssum, Holland, was also carried out by LCol Brick, but further negotiation was necessary in order to obtain suitable space. In May 1968 the clinic at AFCENT was opened with Capt CJM Boston the dental officer and Sgt GN Fathers his assistant.

The clinic at SHAPE was initially located at Chievre and staffed by Capt RM MacDonald, Sgt JF Giroux, dental assistant and Sgt WD Buxton, laboratory technician. The clinic moved from these temporary quarters to a permanent location in the international hospital in

October 1968. In July 1969, Major JD McCallum took over the duties of dental officer.

Closure of Zweibrücken

In December 1967 it appeared that 35 Field Dental Unit had assumed a posture that could be expected to last for some time. However, this was not to be as the announcement was made in June 1968 that the Air Division would be reduced to two wings with 3 Wing at Zweibrücken to close by 1 September 1969.

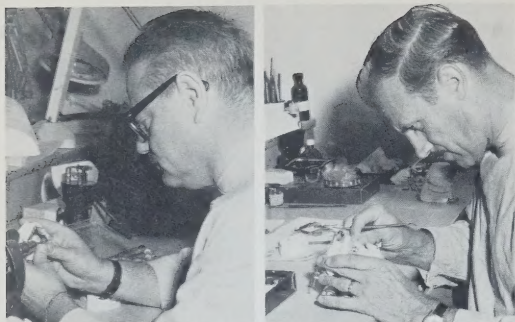


It was, therefore, once again necessary to repeat the procedure of planning for the movement of personnel and equipment. This time it was relatively easy because of the experience gained in moving from Metz and Marville. The clinic at Zweibrücken closed in July 1969. The dental personnel who had completed their tours were rotated to Canada and the others were posted to the clinics at Lahr and Baden-Soellingen to complete their tours.

As a result of the close of the Zweibrücken clinic, 35 Field Dental Unit in September 1969 consisted of HQ and stores at Air Division HQ in the Caserne, Lahr; full-time clinics at 1 Wing, Lahr, 4 Wing, Baden-Soellingen, SHAPE and AFCENT, and part-time clinics in London and Sardinia.

Central Laboratory

It had been thought for some time that there was merit in centralizing the laboratory service for clinics located within the Air Division and the opportunity for centralizing presented itself with the rotation of the technician in Zweibrücken and the retirement of the technician in Baden-Soellingen. Replace-



*Cpl JM White WO DC Hughes
Central Laboratory, Lahr*

ments for these personnel were posted to Lahr and a central laboratory commenced operations in June 1968 with WO HC Kirby as supervising technician. Although there was some loss of personal contact between dental officers and laboratory technicians, generally speaking the central laboratory proved more efficient.

To improve liaison between the laboratory and dental officers and to control the flow of cases, Capt R Fortier was appointed laboratory officer in May 1970.

Preventive Dentistry Program



*WO TJ Deloughery conducting brush-in
at Baden-Soellingen clinic.*

As was the case with many other dental units, the preventive dentistry program in 35 Field Dental Unit had some rather severe growing pains. The demand for treatment by dependants was so great that

dental officers were booked heavily for months ahead and the required time could not be spent in the first year of the program to make it successful. It was realized that it would be necessary to increase the civilian staff to provide dependant care. This was accomplished and the preventive program was a success in the second year of operation.

Formation of Canadian Forces Europe

In September 1969 the Minister of National Defence announced that our military establishment in Europe would be reduced and reorganized into Canadian Forces Europe effective 1 July 1970. The Air Division and 4 Canadian Mechanized Brigade Group would be reorganized to form a mechanized battle group and an air group supported by Canadian Forces Base Europe with headquarters in Lahr and a detachment in Baden-Soellingen. Major-General DC Laubman was named Commander Designate of Canadian Forces Europe. On the same date, 4 Field Dental Company ceased to exist.* Once again



*Lahr Clinic at Air Division. (L to R)
Front row: Cpl MFE Audet, Pte MN Marcoux,
Pte SAF McEllistrum, Mrs M Mehn. Centre:
Capt JAR Fortier, Major JLY Cyrenne,
Major VJ Lanctis, Capt JW Montgomery.
Back row: Sgt DH Hardy, WO CH Adams,
Cpl JM White, WO DC Hughes.*

*Editor's note. An account of the last few years of this unit are covered in Major H Griesbach's article *The End of an Era: 4 Field Dental Company* in *The Quarterly*, Volume 11, No. 2, July 1970.



Lahr Clinic, Canadian Forces Europe.
(L to R) Front row: Sgt LI MacLean, Sgt RS Black, WO DC Hughes, Major WD MacKenzie, Sgt CSTc Sabine-Pasley. Back row: Cpl JM White, Capt EG Schroeter, Mrs M Mehn, Cpl MFE Audet, Capt JW Montgomery, WO JAJ Fret.

it was necessary to bring out the crystal ball and begin to plan dental support for the new force.

Dental support for Canadian Forces Europe is now provided from two main clinics: at the air base in Lahr and in Baden-Soellingen. Unit HQ is located in the same building as the dependants' clinic in Lahr.

35 Field Dental Unit also exercises professional and technical control over the detachments at SHAPE, AFCEM and Soest.

Generally speaking, the clinic at the base in Lahr provides dental support for the battle group and Canadian Forces Base Europe; the clinic in Baden-Soellingen supports the air group.

The changes in 35 Field Dental Unit brought about by the formation of Canadian Forces Europe also included disbanding the unit stores section. Clinics now receive dental stores directly from 1 Dental Equipment Depot, CFB Petawawa.

Dental Services for Dependants

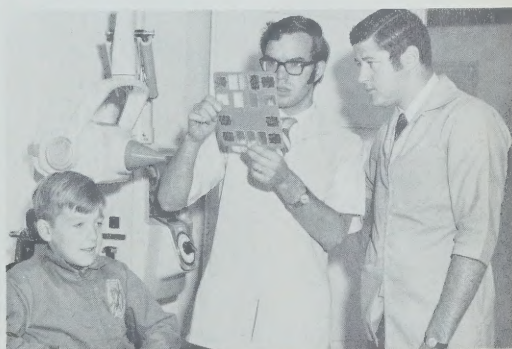
After the move of the Air Division from France to Germany, dependants received their treatment from CFDS personnel in Lahr and Baden-Soellingen and from a civilian dentist employed in Zweibrücken. In September 1968, Dr Malcom Stewart of Edmonton, touring

Europe, paid a visit. He was willing to go to work, so a contract was signed, a dental assistant hired and Dr Stewart started operating in Lahr.

The services of the civilian dentists were very helpful but dental officers were still required to provide a considerable portion of the dependants' care. On 1 June 1969, Dr Chad McIntosh commenced work in Lahr and Dr Ivor Hamilton moved from Zweibrücken to Lahr in September. At the same time, Drs Peter Brymer and Peter Crack commenced employment at the Baden-Soellingen clinic.

Since clinic accommodation was not adequate in Lahr, a separate dependants' clinic was opened in the Caserne in December 1969. Capt Bill McKenzie was responsible for this new clinic and also provided some treatment for dependants. Dental officers in Baden-Soellingen also provided some dental care for dependants.

An establishment of twenty-five all ranks for 35 Field Dental Unit to provide dental services for the new Canadian Forces Europe was found inadequate to provide any dependants' care and civilian support was increased again in 1970.



*Drs CRL Brown and PH Konchak
Dependants' Clinic, Lahr*

Authority was obtained for the Canadian Forces Exchange System in Europe to hire a total of seven dentists, seven dental assistants and two receptionists for dependants' dental services. Direction and control of the dependants' service is the responsibility of 35 Field Dental Unit. No problems were encountered in obtaining the required number of Canadian dentists and by mid-1970 four were employed in the dependants' clinic in Lahr and three in Baden-Soellingen.

A famous landmark -
 "The Lame Newsmonger" -
 points the way to Lahr



"The Stork Tower" - part of a
 moated castle built by the
 Lords of Geroldbeck (circa
 1250) - in the centre of Lahr.

35 Field Dental Unit -
 November 1970



The 1970 rotation proceeded on schedule and arrangements were thus completed for provision of dental services to members of the Canadian Forces in Europe and their dependants.

A Schwarzwald Tour

A tour of duty with 35 Field Dental Unit is one of the most pleasant in an individual's service career. The work-

ing conditions are excellent. The main part of the unit is located in the Rhine Valley adjacent to the Black Forest, one of the most attractive locations in Europe. It is only a few minutes drive to France and a little over an hour to Switzerland. "Space available" seats can be used on service flights for leave trips to England, Scotland and Cyprus.

ADDENDUM

The following names continue the list of personnel who have served with 35 Field Dental Unit over the years.

(see *The Quarterly*, Volume 6, No. 2, July 1965)

Commanding Officers: LCol JC Brick 1964 - 1967
LCol DH Protheroe 1967 -

1965

WO CR White	Sgt MD Crockett	Cpl(W) JM Pringle
Cpl(W) SJ Kirley	(deceased 1970)	LAW MY Fletcher
LAW LE Mattatall		

1966

Capt RWC Adams	Capt CM Mason	Capt BH Weeks
Lt ESW Moore	Dr Z Gulens	WO HC Kirby
Sgt CH Adams	Sgt RA Malpas	Sgt DT Moran
Sgt EA Jermain		Cpl(W) JM Mackie

1967

Major JLY Cyrenne	Major JPA Legendre	Capt RF Cooper
Capt JE Stansfield	(deceased 1969)	Lt JP Carrier
Dr ML Stewart	Sgt RW MacDonald	WO RJ Lowery
Cpl DH Hardy	Cpl TV Girdlestone	Cpl JRY Gratton
Cpl(W) MN Boles		

1968

Capt WD MacKenzie	Capt JAR Fortier	Capt CJM Boston
Dr I Hamilton	Sgt DC Hughes	Sgt GN Fathers
Sgt JF Giroux	Sgt WD Buxton	Cpl C Sabine-Pasley
Pte(W) GD Morton	Pte(W) BR Tucker	Pte(W) BA Lemoine
Pte(W) SAF McEllistrum		

1969

Major JD McCallum	Capt TM Jackson	Capt VJ Lanctis
Capt JW Montgomery	Dr PG Crack	Dr CH McIntosh
Dr P Brymer	Sgt RC Wormington	Sgt CWJ Powell
Cpl JM White	Cpl(W) MFE Audet	Cpl(W) ME Mahlitz
Pte(W) ML Marcoux		

1970

Capt WA Gray	Capt DJ Morrow	Capt EG Schroeter
Dr P Konchak	Dr CRL Brown	Dr R Begg
Dr PH Foreht	Dr G Stauffer	WO TJ Deloughery
WO JA Fret	Sgt RS Black	Sgt WB Looker
Sgt LI MacLean	Cpl GR Bowman	Cpl MJ Craig
Cpl GR Lamontagne		Cpl RM Haiplik

-- Diary of a Dental Document --

The Canadian Forces Dental Services policy of providing the most up-to-date dental care available generates a need for a constant review of professional records and documentation procedure. This entails considerable study of the forms used in maintaining these records. The following illustrates the scientific logical step-by-step evolution of an ideal dental record. This was found and turned in by the cleaning woman.

JANUARY 1967

Canadian Forces Headquarters decided that all military forms shall bear a CF prefix instead of a DND number and allocated a block of numbers in the 500 series. This made me, the DND 422, among other dental forms, obsolete. I am desolated.

JANUARY 1968

CFHQ informed DGDS that personnel record forms must be bilingual. This made all dental forms obsolete. Now I've got to learn French!

APRIL 1968

The Preventive Dentistry Program replaced classification of dental patients by categories. This has made me obsolete ... but I said that in January 1967, didn't I?

DECEMBER 1969

Things were just a little bit hazy all year.

MAY 1970

DGDS made inquiries of the units to determine if I should be replaced, and if so, what changes would they recommend.

MAY 1970

In the meantime, the maxillo-facial record was reduced in size to fit in the dental envelope just before the dental envelope was enlarged to accommodate the panoramic X-ray film that won't fit in the dental X-ray envelope ... a real can of worms.

SEPTEMBER 1970

DGDS asked the units to get on the ball, whatever that means. Unit replies were analyzed in an attempt to find a concensus of opinion and common suggestions. As a result it was recommended that a new Dental Record should be created deleting reference to Navy, Army and Air Force (now considered bad words), and providing space for "SIN" vice "official number", which brought to my mind that candy is dandy but sex won't rot your teeth. Get it ... SIN ... vice...?

OCTOBER 1970

CFHQ informed DGDS that there are no more forms like me in stock and asked if more should be printed. DGDS told them that I would soon be replaced by the CF 525 and no more should be printed. I feel nauseated.

NOVEMBER 1970

The summary and recommendations were lost. So am I.

DECEMBER 1970

Canadian Forces Supply System is receiving indents for me which they can no longer fill.

A prototype of my successor, the CF 525, has been designed and passed to the forms management experts for development.

JANUARY 1971

This is the BIG month ... a draft bilingual CF 525 was sent to DGDS for review and approval.

FEBRUARY 1971

The draft CF 525 was revised by DGDS and the modified form sent out by the forms managers for retranslation where it received priority V73ZL04. That's like low, man, low!

AUGUST 1971

The new draft bilingual CF 525 was passed to DGDS for approval at which time a visiting Regional Dental Officer saw the draft and made a very valid observation and recommendation.

Well, here we go again ... back to the old drawing board for redesign, retranslation and reapproval ... and maybe get lost again.

FEBRUARY 1972

The forms management experts are now finalizing the doubly revised and retranslated CF 525 and are passing it for approval and printing.

MARCH 1972

The Deputy Minister's office requests substantiation for the proposed CF 525 ... now everybody is in the act.

APRIL 1972

An interim CF 525 is approved for user trial but is deferred due to financial constraints. Being a form is most discouraging.

FEBRUARY 1973

Hey! whatd'ya know! Limited quantities of the interim CF 525 were printed, placed in the supply system and all immediately issued to one small base which has one dental officer absent in the USA on an extended course.

MAY 1973

Well, they got those interim CF 525s back from the unit, sent them to other units and requested user reports.

JULY 1973

Units want to know when the new enlarged Dental Envelope will be available as the CF 525 is too large to fit in the old CF 526 Dental Envelope. I knew they should have kept me and just changed my number.

JANUARY 1974

The funeral of the dental officer involved in making me over during the past few years will be held as soon as the investigation into his demise is completed.

In designing the new revised bilingual enlarged Dental Envelope to fit my successor, he was experimenting with one made of plastic and pulled it over his head to see what it looked like from the inside. The cleaning woman found him, clutching these pages of my diary in his inky fingers.



DENTAL CLINIC ~ CFB COLD LAKE ~ 1954-1970

by Capt AP Charlebois



The official opening of the new dependants' clinic took the form of a ribbon cutting ceremony by four-year-old Lisa Wright, daughter of the Base Dental Officer, LCol JJN Wright. In attendance were (l to r): Col WH Vincent, Base Commander, Lt B Vandervaart, LCol Wright and Col LR Pierce, Command Dental Officer, Prairie Region. Some of the clinic staff are in the background.

The history of dental services at CFB Cold Lake has been relatively dynamic since the first clinic opened in 1954. The progressive expansion of dental facilities in both staff and physical size of the clinic has been necessitated by an ever-increasing dental commitment. Not only has the military strength increased, but since 1964 dependants and other civilian personnel have been eligible for complete dental care.

The original clinic was staffed by Major Windsor, one laboratory technician and two dental assistants. The current

strength includes eight dental officers, three therapists, three laboratory technicians and fourteen dental assistants of which six are non-dental air element volunteers. The expansion of the actual clinic space in that period of time has been just as remarkable. The first clinic was located in the Canadian Forces Hospital and had two small operatories, a laboratory and a patient reception room. The present clinic encompasses the entire ground floor of a barrack block and includes eighteen operatories, two X-ray rooms, two offices, two waiting rooms, two orderly rooms, a conference room,

two staff rooms, a large laboratory and a supply room.

The expansion has taken place basically in four stages. In 1958, Major Carter took over from Major Windsor and the facilities in the hospital were expanded by the addition of one more operatory, an X-ray room and an enlarged laboratory; the staff was increased by a second dental officer. Major Hinch replaced Major Carter in 1963.

In 1964, dental treatment services were authorized for service dependants, resident civilians and DND employees. This increased the patient commitment four-fold. Since further expansion of dental facilities in the hospital was not possible, the clinic was moved to its present location in barrack block 24. The re-located clinic consisted of eight operatories, an X-ray room, a laboratory and several offices. At the same time dental officer strength was increased to four. When LCol Jackson became Base Dental Officer in 1965, four more operatories were added and the clinic staff

was increased to five dental officers.

This situation remained relatively static until the summer of 1970. Shortly after the arrival of LCol Wright as Base Dental Officer, construction for further expansion of dental facilities was started. This latest expansion was designed specifically for the dental treatment of non-service patients with a special area designated for the practice of children's dentistry. As a result of the expansion, separate treatment areas and waiting rooms for dependants and servicemen now exist. The clinic staff has been divided so that the dental officers and their auxiliaries in the new area treat only service dependants and resident civilians while the dental personnel in the older part of the clinic treat only military personnel.

An additional advantage which has accrued is that it has been possible for the first time to completely implement the Preventive Dentistry Program for military patients.

DGDS

The (Roulette) Wheels

BGen GC Evans jetted to Las Vegas in November to attend the 111th Session of the American Dental Association. He was accompanied by Col LG Craigie and Major CJ Sivell ... the DG anticipated needing assistance in lugging home his winnings?

His Aim Was True

LCol John Brick recently made the headlines as a member of the Gloucester Long Distance Sniper Team match winners.

The Annual Bash

A Christmas Party for personnel of the Dental Services in the Ottawa area held in the CFB Uplands Junior Ranks Club on 17 December was attended by 42, or 57, or 90 or "quite a few" people, depending on who was interviewed after the party.

Recruits

Things are looking up in the Public Service. Two long-vacant DGDS positions have been filled by Mr Maurice Cote and Miss Brenda Donston, clerk and typist respectively.

Where, O Where Has My Old Car Gone?

Sgt Carl Schmelzle tried out the OTC for the first time in October, having joined the stolen-car club. Somebody lifted Carl's car right out of the office parking lot. A month later, Carl got his cheque from the insurance company and bought another car ... the following day the police phoned to say they had found his stolen car.

Costly Canine

Our Quarterly layout man recently bought himself a Basset pup. The cost of the dog works out to about \$40.00 per pound ... more than filet mignon but not as edible.

CFDS School

by WO PD Peterson, CD

Visits

Dean G Nickiforuk and Dr KR Pownall of the University of Toronto toured the School 4 November ... LtCol RG Beckelheimer, US Army, visited the School in December and returned to Fort Sam Houston Texas with the necessary data required to conduct an auxillary course equivalent to our Level 7 Dental Therapist ... Col LG Craigie attended the American Dental Association 111th Convention in Las Vegas in November ... LtCol PS Sills was in Ottawa 23-24 November for a promotion board and attended an Academy of Prosthodontists meeting in Toronto on 25 November ... Major HW Brogan attended a training conference at Training Command HQ 3-5 November ... CWO WD Morris visited the RCEME School in Kingston in October to take a first-hand look at Performance Oriented Electronic training.



Dr M Jackson and the second year Dental Hygienist Course at the University of Toronto visited the School on 4 December to see what their counterparts in the Services are doing. CWO J Sadler organized the program of displays and table clinics covering all aspects of CFDS auxillary duties from field dental assisting to dental therapist. The dental hygienists expressed interest in the techniques employed at the School to train auxillary personnel. The visit was highlighted by talks by Col Craigie and Major JF Begin.



During December, the CFDS took advantage of the quiet at this time of the year to further preventive dentistry. A team of eleven personnel visited three DND schools at Base Borden and carried out a program of preventive dentistry for the children in grades 1, 2 and 3.

Personnel

Lt FJ Reid successfully completed a three-month orientation course at CFB Chilliwack and has now returned to the School as Laboratory Officer ... a break in routine, to say nothing of the enjoyment of attending a party at the expense of those promoted, was experienced by the staff when Cpl John Clint was promoted to Master Corporal, Jim Atherton to WO and Marcel Beauvais to MWO.



CWO JH Sadler recently received his warrant scroll from the Commandant, Col LG Craigie. Jack was born in Carleton Place, Ontario, and began his career as an infantryman in the 3rd Battalion, The Royal Canadian Regiment, in August 1951. After a parachutist course and postings to Wainright and Petawawa, Jack

went to Korea in 1952. He returned to Canada in November 1953 and transferred to the Dental Services as a dental assistant. He served in this capacity in London, Petawawa, Borden and Ottawa, and is now the senior dental therapist at the School.

Final Tribute

BGen EM Wansbrough's burial services in Orangeville, Ontario on 23 December were attended by the Commandant and several officers from the School.

• • •

15 Dental Unit

by 429 526 775

The FLQ Crisis

Most readers are aware that the FLQ crisis which occurred in October resulted in the displacement of large numbers of troops from their home bases - mainly to the Montreal area. As a result of reduced staffs on bases and stations, together with the demand for increased security precautions, many members of 15 Dental Unit became involved in a variety of additional duties not usually required of them including orderly officer, guard duty and even members of court martials. This provided experience which all concerned readily accepted with the same spirit of cooperation which typified the whole of "Operation Essay".

Christmas Party

The annual "All Ranks Christmas Party" was held in the R100 Club, St Hubert Garrison, on 10 December. Unit representation was excellent with groups from Valcartier, St Jean and the Montreal area for a total of about 70 attending.

Retirements and Releases

MWO Gerry Jerome retired from the Forces 25 October after 28 years of service. Members of the Longue Pointe clinic presented him with an attractive pen and pencil set as a memento and to wish him luck and good fortune for the future.

Major Bob MacDonald took his release from the Services effective 30 November in order to assume a partnership in private practice in Halifax and a part-time teaching position at Dalhousie U. He was replaced as detachment commander St Hubert clinic by Major Jacques Nadeau who in turn was replaced at College Militaire Royal by Capt G Lepage.

The Legion

Sgt JRR Roy, as president of the St Jean branch of the Royal Canadian Legion recently had the pleasure of welcoming a new member to the branch - Monseigneur Jean-Paul Davignon, well-known former Chaplain General (RC) of the Forces.

Sports

Capt YJ Gagnon of CFS Mont Apica attended an alpine ski coach clinic during Christmas leave.

• • •

Denthist'ry

In 1815, after Waterloo, a report on maxillo-facial injuries appeared, prefaced with the words: "Musket balls seldom enter the mouth without fracturing the gums....."

35 Field Dental Unit

by Sergeant CWJ Powell, CD

4 CMBG Welcomed to Lahr

On 30 October General James H Polk, Commander Central Army Group, USAEUR and 7th Army, inspected a guard of honour comprised of members of 4 CMBG on the parade ground at the Canadian Caserne in Lahr. He then inspected a 4 CMBG equipment display at the Lahr airfield.

The Battle Group, led by the Canadian Forces Central Band then marched through the city of Lahr to the air base. The salute was taken by Dr Brucker, the ober-burgermeister of Lahr.

On 31 October 4 CMBG held an open house for the citizens of Lahr. Units displayed their equipment and children were given rides in various tracked and wheeled vehicles. As a climax, the Air Element did a precision fly-past. It was estimated that at least 10,000 persons attended the open house.

Flying DENT

MWO Hutch Hutchinson, the unit DENT, visited Cyprus to repair dental equipment. The total flying time from Lahr to Cyprus and return was twelve hours in one day to do a twenty-minute job.

Lilefontein Day

Sgt Clare Powell, as a member of the RCD, was a guest at the Royal Canadian Dragoons Sergeants' Mess dinner on 6 November in celebration of the 70th anniversary of the Battle of Lilefontein in which the RCDs took part during the Boer War and won three Victoria Crosses in a single day.

Driver Training

All male other ranks of the unit attended a driver training course run by 4 Service Battalion during November and December. We now have sufficient drivers to take part in field exercises. The first test of skill will be a concentration in January in southeast Germany.

Unit Christmas Party

The unit Christmas party was held at the Stadthalle in Lahr on 11 December. After cocktails and dinner, a dance was held. Major Vic Lanctis was Black Peter and his elf was Capt Jack Montgomery who assisted in presenting pieces of coal to people who had committed misdeeds during the past year. Very few members of the unit failed to receive a piece of coal; however, all was forgiven when Black Peter presented everyone in attendance with a small gift. Approximately eighty service and civilian members of the unit attended the party and there was no question that everyone enjoyed themselves since the officers paid for the cocktails.

USAEUR Dental Conference

LCol Protheroe, Majors Boston, Lanctis, McCallum and Capt Schroeter attended the annual US Army Europe training conference held at Garmisch on 23-25 September.

Paid Vacations

Capt DJ Morrow and Cpl GW Bowman were on temporary duty to TSD Prestwick Scotland from 12 to 22 October to provide dental treatment for personnel stationed there ... Major Vic Lanctis volunteered his services for a temporary duty trip to Cyprus in January.

Sports Flash

Sgt Matt Hall's rink placed second in the Zone 9 curling on 17 December.

9th·annual·cfds·bonspiel.

14 Dental Unit

by WO JM Roberts, CD



CWO JM Tapp received his warrant scroll recently from Col LR Pierce, Command Dental Officer, Prairie Region, while LCol JJN Wright looked on.

Personnel

Major Randy Headley is the newly elected president of the CFB Shilo Men's Service Club ... Major HA Pankratz has been licensed as an Alberta Big Game Guide. Just recently he guided two Americans and returned with two handsome moose trophies adorning the roof of his jeep ... CFB Cold Lake dental detachment held their second annual "Best Buck" contest from 9 to 14 November. A deer drive for the local area was organized by Major Pankratz on 11 November. LCol Wright, Capts Charlebois, Milne, Rix and Stengl, WO Sheckosky, Cpls Mitrikus, Peck and Van Hemert participated. The trophy was not won although there were many missed chances. It's reported that Capt Charlebois has hoof marks on his chest from three deer

who almost ran over him ... We welcome Cpl(W) MM Daniels back to duty after a lengthy absence caused by medical problems ... The Calgary area dental detachment said farewell to Sgt Ralph Thornton prior to his retirement in the form of a get-together party. Ralph's title of "Corps Fastest Set-Up Man" is now up for grabs ... Capt RY Gish successfully used his antelope tag on opening day in the Tilley district of southern Alberta ... Capt DW Pettigrew entered the Green, Blue and Brown Belt middleweight open judo championship competitions held 21 November in Winnipeg and was successful in all three. He has now been promoted from Green Belt to Brown Belt.



Cpl LA Overbye has been a motorcycle buff for a number of years. The photo above shows him seated on his latest restoration, a 1948 Indian Roadmaster 74 cu.in. He also has a 1927 Harley 61 cu.in, a 1952 Arich Square 4 and a 1940 Indian 74 cu.in., as yet unrestored. He is planning to restore a 1938 Norton 500 cc. Any information regarding parts or the availability of old machines for purchase would be greatly appreciated by Cpl Overbye.

base borden · 26·27· feb.

12 Dental Unit

by WO GR Jennings, CD

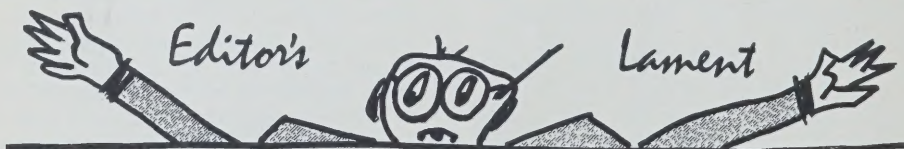


Christmas Season

A dinner-dance held in the Men's Mess at Windsor Park on 2 December ushered in the Christmas season. This most enjoyable party was attended by about seventy Dental personnel, their wives or girlfriends (but not both) and a few guest couples. Most of the CFDS people in the Halifax area attended as well as several hardy couples from other bases who battled the snowstorms and bad roads to attend.

Local Boy Makes Good ... Blood ...

MWO Stan MacLean of CFB Shearwater dental clinic was presented with a Red Cross Award by Victor deB Oland, the Lieutenant-Governor of Nova Scotia on 4 November. This award was in recognition of Stan's more than 35 blood donations. We're wondering when Stan finds the time to donate ... he is very busy at the Dartmouth YMCA passing on his knowledge of judo to the younger members of the community.



Getting out a publication has its problems. If we print jokes, some readers call us adolescent ... if we don't, others say we are being too serious and technical. If we don't print every word of every contribution, we are accused of over-editing ... if we run them verbatim, the book is filled with junk. If we change an author's copy, we're being too critical ... if we don't, we are reproved for slipshod editing. If we scream for contributions, we're being too pushy ... if we clip items from other publications to fill space, we're being too lazy to write them ourselves. Like as not, you'll even say we borrowed this item ... you're absolutely right, we did!

1 Dental Unit

by MWO EE McFadden, CD



At the annual Christmas party given by the DGDS and officers, a farewell address and a gift were presented to Miss AE Campderos. "Addy", as she is known to all her friends, served almost nineteen years as a dental assistant in the Ottawa area. Major McDermott is shown, after the presentation of a brilliant orange golf bag, offering his final "thank you for a job well done". Addy's wonderful sense of humour and her devotion to the Dental Services will remain with us for many years.

Christmas Party

A unit Christmas party was held at Beaver Barracks in Ottawa with wives and friends attending. Also in attendance were BGen and Mrs Evans. With a substantial supply of cocktails to start the party, a good time was had by all.

House Warming

Our house-building pioneer, Cpl Rick O'Dell, has completed his home and he and his family are now comfortably settled. Maybe Rick would be willing to pass on a few hints to those contemplating building their own houses.

• • •

As of 1 January 1971: 18 bases, 19 stations and 1 camp have fluoride-adjusted water systems; 2 bases, 4 stations and 1 camp have natural fluoride water systems ranging from 0.2 to 1.1 ppm. This does not include bases in metropolitan areas such as Halifax, Toronto, Winnipeg or Edmonton.

11 Dental Unit

by Sergeant RS Walker, CD



Capt Jim Fennell's rink with Sgt Dick Walker, vice (*left*), Capt Tom Erskine second (*right*), and LCol Norm Butcher, lead (*kneeling*), won the Base Esquimalt Curling Playdowns with four consecutive wins. The rink then travelled to CFB Chilliwack in January and participated in the Zone I Finals. This tournament was a single round robin but unfortunately the rink won only two games and lost four.

CFB Comox will represent the Zone in the Nationals at Chilliwack early in February.

• • •

Dentist'ry

Dental treatment of personnel in the Permanent Active Militia was authorized in 1920 to be carried out by civilian practitioners. Some of the fees were: dental examination \$2; cleaning \$2; fillings .50 to \$1.50 (\$3.50 for gold); extractions .50 to \$1; upper and lower dentures \$25 each - both for \$45.

13 Dental Unit

by Sergeant ES Beattie, CD

Visits

The Honorable Ross MacDonald, Lieutenant Governor of Ontario and MGen M Lipton visited the dental clinic while making a tour of CFS Moosonee.

Line Up For Your Posting To 13 Dent Unit

Some of the clinics in this unit are now, or will be, more attractive and convenient as improvements by painting and minor alterations in some, to general construction in others, progresses ... The clinic on Avenue Road in Toronto has been painted inside and out ... The Downsview clinic at CFB Toronto has moved its orderly room in preparation for the installation of another operatory ... The London clinic managed to get new aluminum windows while their new laboratory has been completed. Since the final touches were put on the laboratory, it has been compared in the clinic as a Cadillac to a Model-T ... The clinic at CFS Lowther has been moved to another building. MWO RG Hopkins and Cpl JLA Violette installed an airtor in place of the old Weber military unit ... The RMC clinic at Kingston had its first paint job in nine years and with new shelving installed, stores articles are now easier to locate ... Excess equipment has been removed from CFB Clinton clinic in preparation for the closing of that base in the near future ... The showpiece for this unit, at CFB Petawawa, could be taken as a clinic "in the round" when it is completed this spring. It will have a circular corridor, walls painted different colors and doors everywhere ... for the uninitiated to explore. Maybe a few strategic mirrors and/or signs will have to be added.

The WHEAT ...

Exercise *GINGER*, involving troops from CFB London and CFB Petawawa interrupted programs at these two bases. Dental personnel at CFB Petawawa were involved in mounted patrol with the Military Police, Medical and Signals personnel on base security duties ... The dental officers at CFB North Bay have formed a

study group with North Bay civilian dentists which meets monthly. The Study Club is registered with the Academy of General Dentistry ... Sgt RS Lindsay and Cpl BL Mackie were "borrowed" by CFB Toronto for a week to instruct troops in the use of the SMG. Sgt Lindsay is also a swimming instructor and enthusiastic SCUBA diver. It would appear that some members of the Dental Services who are qualified in several trades do get the opportunity to use them again ... MWO JE Raymond received his first clasp to his CD effective August 1969 ...

and the CHAFF ...

Capt RI Stammers was on an early cruise to Barbadoes - will his tan last till summer? ... Pte BF Curtis was flown by helicopter to NDMC with a cracked skull. He slipped and fell on the hard floor of a barrack block. However, he was soon released with two weeks light duty. Our sympathy to this new member of the unit but that's using your head the hard way ... MWO RK Jones is enjoying a happy new year, having completed his tour as PMC of Petawawa Headquarters and Services Sergeants' Mess on 31 December.

Retirements

LCol RA Fell was "partied out" on retirement recently. The Kingston Military Hospital and the dental clinic staff presented him with a golf cart at a joint function. The female members of the clinic were hostesses for another party at the home of Miss J Dobson where LCol Fell was presented with a



decanter and a desk set. At a third party at the CFB Trenton Yacht Club, he was presented with a silver tea tray from members of 13 Dental Unit and an RCDC Crest suitably mounted.

LCol Fell served with the RCAF from September 1939 to July 1945. North Africa, Sicily and Italy were among the different theatres he was assigned to. After his release in July 1945 he entered university at Toronto and on graduation in dentistry, enrolled in the Forces in August 1949. His many postings since have included Germany, two tours at Goose Bay, various locations across Canada and finally his second posting to Kingston. LCol Fell and his family will be making their home in Kingston where he starts a private practice this year.

Sports

Major JE Stansfield has been appointed Sports Director for the Trenton clinic and has been busy arranging for badminton courts and curling ice ... the curlers in this unit have all been practicing for THE bonspiel at CFB Borden in February ... Some of the results to date on this Scottish winter sport will give other players second thoughts about where the winning team could come from this season ... WO Clarke's rink won the "A" Event in the Petawawa Sergeants' Mess bonspiel. His rink represented the base in the Zone 4 championships at CFB Rockcliffe where they won three games and lost two. The Zone 5 championships were held at CFB Kingston. It was necessary for CFB Kingston to enter three rinks. Two represented the base and one was formed to assist CFS Cobourg who had only one entry. The third entry of Kingston, with Major IAC MacDonald playing third, won the "B" Event. They came as close as the last rock on the 12th end to going to CFB Chilliwack for the Nationals.

Cpl PR Coss is the publicity member for the CFB Petawawa Ski Club and writes a weekly article for the Petawawa Post ... Sgt CSB Heather, a member of the same club, is on the entertainment committee.

Capt GE Rocque is playing hockey for the Medical team in the Base Petawawa inter-unit league.

The dental staff at RMC Kingston is in good condition. They are upholding the athletic image of the college by partaking in jogging and also managing forty lengths in the pool at lunch hour ... Capt BLP Hart attended a ski course at Hidden Valley 14 to 19 December during the Cadets' Christmas examinations to help prepare himself for the position of co-chairman of the RMC Ski Team. RMC may be considered by many to be very regimented and rigid. Although a strict routine exists at the college, the winter weekends hold pleasant memories for a handful of cadets and the dental officer. As staff advisor to the RMC Ski Team, Capt Hart manages and assists the team in their efforts to compete against other universities. Most weekends, Capt Hart can be found with pen, paper and stopwatch in hand at one of the Ontario or Quebec ski areas.

The 1969-70 cross country team won the Ottawa-St Lawrence Athletic Association championship while the Alpine (Downhill) team looks promising this year.

The Cdn Armed Forces Ski Meet to be held at Valcartier 22-28 February is an event in which all members of the Armed Forces may participate ... if you can ski.

Sport report from CFS Moosonee: Capt BW Yates claims the ice fishing is very good. He is a cold weather enthusiast and says his only discomfort has been a badly frostbitten ear while driving his snowmobile at night in -46° below zero weather. His Moto-Ski Club is planning a trek to Fort Albany on the west coast of James Bay, one hundred miles north of Moosonee, during the Easter school break. They will be self-supporting, carrying fuel and other requirements with them. Capt Yates must have come from pioneer or explorer stock 'way back when, since he appears to be enjoying his posting so much ... a request for an extension has been approved.

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Professional Training

Walter Reed Army Medical Center, Washington, DC

Preventive Dentistry, 12-16 October

Capt GO Lepage

WK Kellogg Foundation, University of Michigan, Ann Arbor, Mich

Crown and Bridge, 9-21 November

Capt GH Pinsonneault

Endodontics, 30 November-11 December

Major JE Stansfield

Periodontics, 7-18 December

Capt TJ Erskine

US Naval Dental School, Bethesda, Maryland

Oral Surgery

Major GR Nye

6 November-24 December

Capt BLP Hart

16-23 November

Oral Pathology, 11-15 January

Major H Griesbach

Alpha Omega Continuing Education Seminar, Toronto

The New Look at Dentistry, 10-11 November

Major PR McQueen, Capt PG Greenacre, MWO LR Barrett, MWO CM Torrens, WO HC King.

Canadian Forces Training

Canadian Forces Dental Services School, CFB Borden

Periodontics, 3-18 November

LCol WW Anglin, Major FC Arpin, Capts PFG Stirling, TC Ringland, WA MacInnis, CH Hawkins

Periodontics, 13-26 January

Capt RV Gish, GO Lepage, MFA Pilon, RD Carver, KR Morley, DM Hodges

Removable Partial Dentures, 1-16 December

LCol LA Richardson, Capts JJR Bellerose, TM Clark, RM Depledge, KEH Rosengart, DW Pettigrew

Operating Room Procedures, 19-23 October

Capt JJ Jacques

Dental Assistant PL3, 13 October-16 December

Cpls VG Frank, JEL Frechette, R Jones, Ptes(W) HG Christenson, PD Duncan, BJ Hefermehl, ML Rath, J Stephens, SV Szablewski, Ptes AT Baird, D Bowering, JE Genest

Dental Equipment Maintenance Technician PL6, 4 January-31 March

Sgts JA Boulaine, JR Gratton, PE Harkin, MD Longford, Cpls JP Cliche, EJ Schultz

Laboratory Technician PL4, 19 January-26 April

Cpls RM Clarke, JR Desgrolliers, JG Allain, TJ Parent, MC Grandchamp, LA Overbye, LA Lambert, DG Allen

Canadian Forces Officer Candidate School, CFB Chilliwack

Commissioned from Ranks Orientation, 28 September-18 December

Lts RJ Rutledge, FJ Reid, DE Fraser

Canadian Forces School of Management, CFB Montreal

Advanced Management, 17 November-18 December

Major JW Jolly

Middle Management, 17 November-18 December

Capt JR SAvoie

Organization Analysis, 23 November-11 December

Capt FJ Marentette

Canadian Forces School of Administration and Logistics, CFB Borden

Supply Technician Packaging, 14 September-2 October

WO JF Kennedy

Training with Industry

Williams Gold Refining Co. of Canada Ltd., Fort Erie, Ont

Mr A Kelly, Education Director and Mr P Boyer, a technician, visited CFDSS from 29 November to 2 December to conduct a course on the new pyroplast shading technique.

Ritter Dental Equipment Co., Rochester, N.Y.

Installation, Maintenance and Repair of Ritter Co. Equipment

Sgt MD Longford

9-13 November

MWO SD Posyluzny

7-18 December

J.F. Jelenko Co., New Rochelle, N.Y.

Elementary Porcelain to Gold, 25-29 January

Sgt EB Borden

Promotions

Major:	HA Pankratz, HM Amos, DL Poy, GD Petrie, VO Bergland
Lieutenant:	FJ Reid, RJ Rutledge, DE Fraser
Master Warrant Officer:	M Beauvais
Warrant Officer:	GR Jennings, JA Atherton
Sergeant:	PD Whynott, RH Stenabaugh, JA Larouche, A Busse, HB Clifton
Master Corporal:	JA Clint
Corporal:	VJ Arsenault

Welcome to the Dental Services

A cordial welcome is extended to Cpl EF Barnes, Pte JEB Genest, Cpl HG Habberjam, Cpl L Parker, Cpl B Hansen, Pte MF Pounder, Cpl BL Rector, Cpl LC Street, Cpl I Winsor, Cpl JG Beaulieu, Cpl TW Mountain, Cpl VB Frank, Sgt ER Joly, Mr JFM Cote, Mrs BL Keyes, Miss B Donston, Mrs JM Hardy, Mrs D Bennett, Pte(W) ML Rath, Pte(W) S Szablewski, Mrs G Volk.

Retirements and Releases

Farewell and good luck to Mrs S Saunders, MWO AM Jerome, LCol RA Fell, Capt EA Church, Major RM MacDonald, Miss AE Campderos, Sgt GA Ridley.

Vital Statistics

Marriages

Congratulations and many years of happiness to Miss Margaret Hogarth and Cpl CJ Beauchamp ... Miss Denise Tardif and Sgt LA Larouche ... Miss Edith Cook and Capt LJ Hudgins.

Births

Congratulations and may the next ones be triplets.

Sons

Cpl and Mrs LA Lambert
Capt and Mrs JR Cote
Capt and Mrs NS Misura
Sgt and Mrs P Bosch

Daughters

Capt and Mrs HW Wilford
Capt and Mrs JB Simoneau
Capt and Mrs WA MacInnis
Capt and Mrs RY Gish
Capt and Mrs R Meunier

Condolences

Deepest sympathy is extended to Cpl WR McIntosh on the loss of his father and to Sgt EL Schell on the loss of his mother.

465 or 202 or 555 or 530 or

There seems to be a growing tendency to make use of fancy catch-phrases like "polarization programming" or "computerized resiliency" instead of good plain old words. Well, evidently a chap who has been cutting his way through the jargon of the government for many long years has come up with his own device, called a "systemic phrase projector". It employs a lexicon of thirty carefully chosen "buzz words" which are arranged like this:

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
0. integrated	0. management	0. options
1. total	1. organizational	1. flexibility
2. systematized	2. monitored	2. capability
3. parallel	3. reciprocal	3. mobility
4. functional	4. digital	4. programming
5. responsive	5. logistical	5. concept
6. optional	6. transitional	6. time-phase
7. synchronized	7. incremental	7. projection
8. compatible	8. third generation	8. distention
9. balanced	9. policy	9. contingency

Now to fire off the first memo in the racy modern manner. The principle is simple. Think of any three-digit number, then select the corresponding buzz words. Take 365, the number of days in the year, for example. Using the above table, these figures become "parallel transitional concept". Let us use 876. This becomes "compatible incremental time-phase". ... Go ahead and have fun.

PREVENTIVE DENTISTRY ~



...any time... any place...

Dent

The
**CANADIAN
FORCES
DENTAL
SERVICES**
Quarterly

VOLUME TWELVE · NUMBER ONE · APRIL 1971 ·





The CFDS Quarterly



• Volume Twelve • Number One • April 1971 •

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Cover Photo

"Craigie's Banana Belters"
Ninth Annual CFDS Bonspiel,
CFB Borden, 26-27 February,
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K1A 0K2

MERCURY HYGIENE

Mercury is a potentially toxic substance. This fact has received considerable publicity in these days of increased awareness of environmental pollution.

Corporal Scheer's article is very timely and should encourage a closer scrutiny of how we handle mercury in our offices.

An editorial in the March 1971 issue of the Journal of the American Dental Association also focuses attention on this hazard and supports Corporal Scheer's recommended prophylactic measures.

Dr. H. Buchwald of the Toxicology Division of the Food Advisory Bureau of the Department of National Health and Welfare has pointed out that there is sufficient evaporation of open mercury in a 70° unventilated room to reach potentially harmful levels, and that the heat of a cigarette is sufficient to volatilize significant amounts of mercury either from contaminated surfaces or contaminated fingers.

Since detection and decontamination of mercury is difficult and somewhat uncertain, meticulous techniques are required by the dental office personnel when using mercury. If an admonition is in order - and it obviously is - it should be directed to precautions against mercury contamination of the dental office rather than contain any contra-indications for the careful use of dental amalgam as a restorative material.

MERCURY TOXICOLOGY AND THE DENTAL STAFF

CORPORAL R.B. SCHEER



The purpose of this article is not to create a mercury-phobia among the dental staff but to make clear to those concerned where and when risks are present and how they may be reduced.

Mercury pollution in our waterways and fish has recently received a lot of attention. This contamination is basically inorganic. However, it has been found that some contamination, in Lake Winnipeg for instance, has been partially caused by grain fungicides derived from organic mercury. The inorganic mercury in the water is converted to organic (methyl) mercury in fish.

To date medical authorities have yet to decide general limits of mercury ingestion/absorption as many factors are involved, one of which is the individual sensitivity. However, routine work levels should not exceed 0.1 parts per million in whole blood. A significant level would be 1.0 part per million. This may be associated with symptoms of poisoning.¹

Also, much of the mercury which may be absorbed by the body in a dental environment is suspended in the air as an airborne contaminant. The threshold limit value or safe working level for all forms of mercury, except alkyl, is 0.1 milligrams per cubic meter of air. The threshold limit value is defined as the maximum time-weighted average concentration of an atmospheric contaminant to which the majority of normal individuals may be exposed for prolonged periods (usually eight hours per day, five days per week), without adverse effect.²

Absorption, Distribution and Excretion

Mercury is very toxic in all its forms, particularly as an organic compound. It can enter the body by inhalation, ingestion and skin contact. Most of the

toxicity problems are a result of inhalation of dust or mercury vapor. Ingestion is usually an attempted suicide. Elemental mercury is not well absorbed when ingested.

Inhaled mercury vapor with its ultimate state of sub-division oxidizes rapidly enough to produce a state of intoxication if the exposure is sufficient. Elemental mercury rapidly leaves the lungs and is gradually concentrated in nervous tissue, a phenomenon that is attributed to the high lipid solubility of mercury. The fact that elemental mercury can be absorbed through the skin is also due to the lipid solubility factor.³

As mercury can pass through the skin and into the blood, it finally becomes attached to the plasma proteins. It is then rapidly distributed to the tissues and within hours can be found, in the following approximate order of decreasing concentrations, in the kidney, liver, blood, bone marrow, spleen, upper respiratory and buccal mucosa, intestinal wall, skin, salivary glands, heart, skeletal muscle, brain and lungs. The concentration falls at different rates in different organs. Approximately 50% of the mercury is excreted within six days of administration, but there may be traces evident for months.⁵

Mercury Poisoning

Acute. Acute cases which are rare in industry are usually accidents or attempted suicides. The mercury is usually ingested and if elemental, may cause no problems. The salts produce acute-stomatitis, gastroenteritis, ulcerocolitis and possibly anuria. Inhalation of vapor may cause coughing, bronchial irritation and pneumonia.⁴

Chronic. This form of mercury poison-

ing results from exposure to small amounts of mercury and its vapors over a long period of time.

Chronic poisoning may produce the following.

- Tremor of eyelids, tongue and hands which is more pronounced with excitement. It will interfere with writing and other finely coordinated activity.
- Kidney disease, with albumin in urine, and nephrosis.
- Erethism, which is marked by irritability, frequent blushing, outbursts of anger and excitement. Such persons may become very timid, depressed and lose all joy in life. These changes are not altogether reversible.
- Oral changes; gingivitis and loss of teeth. The blue line along the gums so often talked about is a rare finding.⁴

As a matter of interest, the term "Mad Hatter" comes from mercury poisoning incurred by hatters in the Eighteenth and Nineteenth centuries. Mercury in nitric acid, used to treat fur fibre so that it would "felt" better, evaporated into the air as the fur dried. Hatters exposed to it developed a nervous disease.

Occupational Hygiene

With present day methods for the preparation of amalgam, it is impossible to avoid a certain amount of mercury vapor. The factor which contributes to the amount of mercury vapor in the dental operator is the evaporation from spilt drops of mercury which have not been removed after lodging in floor joints. Elemental mercury evaporates at room temperature. Theoretically, one cubic meter of air at +20°C. can hold approximately 13 milligrams of mercury, which is a considerable amount and hazardous to health. As long as amalgam is so widely used, certain exposure to mercury in the operator can scarcely be avoided.

It must be kept in mind that not only is mercury vapor poisonous, it is invisible, tasteless and odorless.⁶ Consequently the senses do not warn us of its presence. One can therefore appreciate the need for prophylactic measures.

Prophylactic Measures

The fact that mercury evaporates at room temperature has been mentioned. The dental assistant must avoid spilling drops of it. If spilled, mercury should be immediately removed or covered with a vapor suppressant (dustbane, sodium bicarbonate, sawdust), until it can be removed. When removing spilled mercury, a clean moistened mop should be used. Heavy pressure should be avoided so that the mercury will not be broken into smaller droplets, increasing the surface area to evaporation.

Excess mercury and amalgam scraps should be placed in a closed container of water. This slows down the subdivision of mercury. Amalgam should not be expressed with bare fingers. A rubber finger stall should be used.

The dental clinic should be equipped for efficient ventilation and a supply of fresh air. Tables and floors should have hard polished surfaces and be free of fissures.

Apart from technical measures of control such as measuring the amount of mercury in the air with a vapor detector, a medical examination including urinalysis should be had annually.

Prophylactic measures of this kind have long been recommended for dental staff⁷ but often have been neglected because of widespread indifference or because of ignorance of the consequences of mercury poisoning. It may also be because no symptoms, other than fatigue, manifest themselves.

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2. American Conference of Governmental Industrial Hygienists, 1970.
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4. Marriott, I.A. Director of Preventive Medicine, Canadian Forces Headquarters, Ottawa. Personal communication.
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6. Ibid, p. 178
7. Ibid, p. 206.

AN IMPROVED DISTAL EXTENSION REMOVABLE PARTIAL DENTURE

CAPTAIN D.W. PETTIGREW, DDS.



De Van gave us a fundamental philosophy within which we should practice when he said that *"in partial denture construction we should not be so concerned with the meticulous replacement of what has been lost but rather with the careful preservation of what remains".*¹ This statement is nowhere more applicable than in the free-end extension partial denture.

In adopting a sound approach to the free-end extension removable partial denture it is paramount to realize that some mobility of the finished prosthesis is inevitable. Rocking of the denture base or bases will occur not only during masticatory function but every time the patient swallows or speaks. Success in dealing with such tooth-tissue borne dentures will largely depend on:

- the reduction of the amount of mobility that occurs; and
- the reduction of the traumatic effect of that mobility on the remaining natural teeth and edentulous ridges.

The first part of this article will illustrate a simple but effective design for a removable partial denture replacing the mandibular molars and describe why it has been so designed. The second part will describe an altered cast impression technique and how it can aid in achieving both these objectives.

Design of a Removable Partial Denture Replacing the Mandibular Molars.

The predominant theme of the design for a free-end extension case must be "to reduce the traumatic effect of mobility on the remaining natural teeth". The design should be clearly presented on the dental laboratory instructions and all details described. The importance of this cannot be overstressed, particularly where correspondence with the laboratory is by mail.

Figure 1 is an example of laboratory instructions for a removable partial denture replacing the mandibular molars.

It is convenient to use five headings:

- SUPPORT
- BRACING
- RETENTION
- INDIRECT RETENTION
- TECHNICAL SPECIFICATIONS.

How does this design accomplish the aim of:

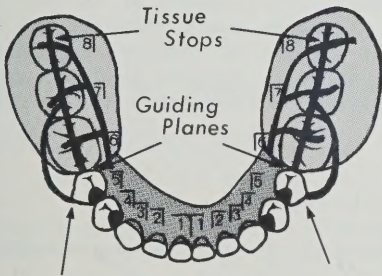
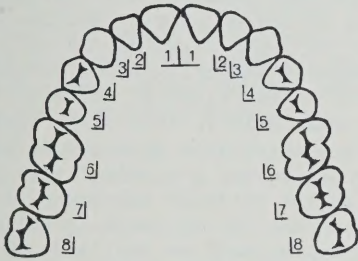
- reducing mobility; and
- reducing the traumatic effect of mobility of the denture on the remaining natural teeth and edentulous ridges?

Editor's Note. Credit for the ideas presented in this article are extended to Lieutenant-Colonel P.S. Sills, CD, DDS, and to Major D.N.H. Charles, DDS, of the Canadian Forces Dental Services School. An unpublished CFDSS precis on Removable Partial Dentures has been referred to extensively throughout the article.

DENTAL LABORATORY INSTRUCTIONS

S.I.N.	Rank	Name and Initials	Age	Unit
Type of Case			Shade	Mould
Right	Left			

INSTRUCTIONS

Proposed Restoration

RPD required, replacing 8 7 6 | 6 7 8
chrome cobalt framework.

Support

1. $\overline{5} \ 4$ MO rests
2. $\overline{4} \ 5$ MO rests
3. Denture base extensions.

Bracing

1. Lingual plate
2. Buccal and lingual flanges of denture bases.

Retention

1. I-bar to Bu surface of $\overline{5}$
2. I-bar to Bu surface of $\overline{5}$

Indirect Retention

4 4 MO rests

Technical Specifications

1. No stippling
2. Tissue stops as indicated on diagnostic cast
3. Guiding planes distal of $\overline{5} \ \overline{5}$.

Signature of Dental Officer

Clinic Location

Date

Figure 1

Support

Four occlusal rests have been created to provide support for the denture. The rests on the terminal abutment have purposely been placed on the mesial half of the occlusal surface. This provides an occlusal rest anterior to the central axis of the posterior tooth where occlusal forces can resolve in an anterior direction (Figure 2).

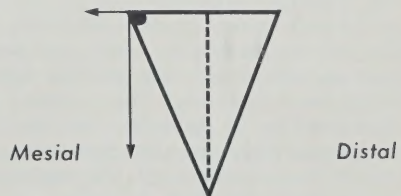


Figure 2

The tendency for anterior movement of the posterior abutment is not serious as the remaining teeth offer horizontal support for the tooth and the denture.

It is readily apparent that the placement of the occlusal rest on the distal of the posterior abutment would encourage the tooth to tip distally. Moreover, the rest would hook positively in to the distal of the tooth and force it posteriorly like a precision fitted wrench would (Figure 3).

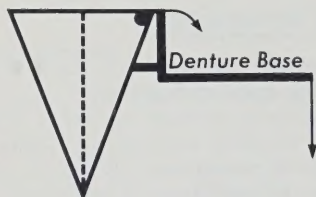


Figure 3

Along with the occlusal rests, the denture base extensions will discourage motion toward the edentulous ridge.

Bracing

The major connector selected for the design is a lingual apron. The shape the lingual apron acquires by following the contours of the lingual and proximal surfaces of the teeth enables it to resist stress and torque from a variety of directions. For this reason it is the connector of choice for the free-end extension denture which requires as much stabilization as possible.

The lingual apron is a versatile connector finding ready application when the floor of the mouth is too high to permit the use of the lingual bar which must extend 3 to 5mm. below the gingival margin. It will stabilize periodontally weakened anterior teeth and reduce the accumulation of calculus on their lingual surfaces.

The lingual apron is carried onto the cinguli of the anterior teeth and terminated in definite rests on the mesial of the first bicuspid. The lingual apron terminating in definite occlusal rests also becomes an indirect retainer to resist dislodgement of the denture base away from the soft tissue.

Together with the lingual plate, the buccal and lingual flanges of the den-

ture base will provide bracing and resist motion in a lateral direction. Any stresses that result from movement will be distributed among the lingual surfaces of the teeth and the buccal and lingual surfaces of the edentulous ridges. Naturally, there are occasions when anatomical considerations dictate the use of a lingual bar.

Retention

Two types of clasps should receive immediate consideration when designing a distal extension partial denture. Firstly, an I-bar clasp may be cast to the framework and originating sufficiently distal to the terminal abutment to provide flexibility. This clasp approaches the retentive area from the infra-bulge position and the retentive tip is placed at the greatest curvature of the buccal surface of the tooth. A suitable retentive area must be available or created on the buccal surface. The desirability of this clasp lies in the fact that with movement of the denture base, the clasp moves downward and away from the height of contour, completely losing contact, thereby removing any possibility of torquing action (Figure 4).

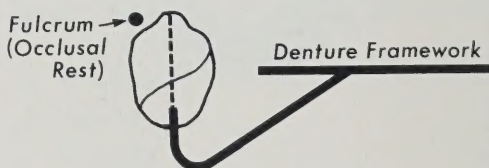


Figure 4

The I-bar clasp also results in the least possible distortion of the natural anatomy of the tooth and does not interfere with natural food flow or gingival stimulation as much as a circumferential clasp. Reference to the laboratory instructions (Figure 1) will reveal that two I-bar clasps have been requested with buccal retentive areas. These clasps receive reciprocation from the lingual plate.

When an excessive tissue undercut will not permit the use of an I-bar clasp, an alternate choice is a combination clasp consisting of a round wrought wire retentive arm and a cast reciprocal arm or lingual plate. This clasp may also be

used where the retentive area is on the mesial side of the posterior abutment. The clasp should be soldered to the acrylic retentive portion of the cast framework to avoid weakening of the round wire. Because of its flexibility, the clasp dissipates any torquing stresses exerted on the posterior abutment.

Indirect Retention

As discussed previously, the indirect retainer in this design is the lingual apron because it is terminated in definite occlusal rests on the mesial of the first bicuspid. As such, it will resist movement of the denture base away from the edentulous ridges.

The combination of all the above elements will produce a partial denture that has minimum mobility and which distributes stresses as evenly as possible between the remaining teeth and the edentulous ridges.

Selecting a Final Impression Technique

Alginate in a Stock Tray

Alginate is an extremely popular impression material. It consistently records the details of hard tissues accurately and it is an acceptable material for final impressions of tooth supported partial dentures. Unfortunately, when faced with consistently recording the details of displaceable soft tissues, alginate has serious limitations. No two alginate impressions will record the same soft tissue areas identically and a denture constructed from one alginate impression will seldom fit a cast made from another. The impression obtained with alginate is often referred to as an anatomic impression as the details of oral structures are theoretically recorded in their passive state. In actual fact this is seldom the case as alginate impression material has varying "body" (light to heavy) and it does displace soft tissues to an unpredictable degree. Over-extension of the vestibular area is not uncommon. For these reasons utilization of alginate as the final impression material for free-end extension partial dentures should be seriously questioned.

An Altered Cast Impression Technique Utilizing Mouth Temperature Wax

When utilizing this technique, the mouth preparations are completed and an impression made using alginate in a stock tray. The framework is cast and verified in the mouth. Resin trays are then attached to the framework and adapted to the edentulous areas on the preliminary master cast. It is important that the peripheries of these bases be underextended by 1.5 to 2mm. and that extreme undercuts are relieved.

At the next appointment, the periphery of the trays are border molded with compound using the rests of the framework as impression stops. Upon completion of the border molding, any excess compound is removed from the tissue surface of the saddle except in the retromolar area. The tissue surface of the base area is painted with a wax impression material (Iowa wax), which has been softened in a water bath and is fluid at mouth temperature. The framework and base are seated in the mouth and the impression is held in place for a minimum of eight minutes. More wax is added if required and the process repeated, until the entire impression surface assumes a glossy sheen. At no time is pressure exerted on the heels or saddles of the tray. The impression must, of course, be chilled with cold water prior to removal from the mouth.

Wax adhering to the internal surface of the framework is removed prior to pouring the impression. The primary master cast is altered by making right angle saw cuts across the edentulous areas 1mm. distal to the posterior abutments and removing the edentulous areas from the casts. The remainder of the primary cast is reduced to half of its former thickness and its undersurface scored. The cast framework with the resin trays and wax impression is seated in its correct relation on the tooth portion of the modified primary cast and secured with sticky wax. The cast and impression is boxed and sealed as a complete impression. Prior to pouring the new ridge areas in stone, the base of the cast is immersed in one-half inch of water for ten minutes and then the impression is filled with a stiff mix of stone and allowed to set. To separate, the poured impression is immersed in water at 110 to 120°F.

Benefits Derived from the Altered Cast Technique

The most obvious advantage of this technique over the "alginate in a stock tray" method is that accurate extension for maximum tissue coverage is possible with border molding. Maximum coverage means maximum support and bracing. Naturally this reduces mobility of the denture in both vertical and lateral directions.

A second advantage is the recording of the supporting form of the edentulous ridges. The mouth temperature wax in the resin trays compresses the tissues slightly and the resilient ridges are made more compact and capable of providing their share of support. However, because the wax is fluid at mouth temperature and no pressure is placed over the saddle areas, the tissues are not unduly distorted but displaced within the limits of their physiological tolerance. This recording of the supporting form of the edentulous ridges results in less vertical movement of the finished denture base. Again, less mobility means less trauma to the remaining natural teeth.

The anatomic form and relationship of the remaining natural teeth and their investing structures has been previously produced accurately by the primary cast permitting the proper placement of retentive, supporting and bracing elements.

Summary

A design for a bilateral distal extension removable partial denture replacing the mandibular molar teeth has been demonstrated. The effectiveness of this design in reducing mobility and reducing the traumatic effect of that mobility which does occur, has been illustrated. An altered cast impression technique utilizing mouth temperature wax has been described. The advantage of this technique over the conventional alginate impression has been presented.

References

1. Eich, Frank A. *The role of removable partial dentures in the destruction of the natural dentition.* Dental Clinics N.A., November 1962, p. 717.

FROM THE CANADIAN DENTAL ASSOCIATION GOVERNORS' LETTER, 5 FEBRUARY 1971.

CANADIAN DENTIST VISITS CARIBBEAN ISLANDS

Fifteen hundred school children on two Caribbean islands met their first Canadian dentist when G.B. Shillington, formerly of Manotick near Ottawa, visited Grand Turk and South Caicos Islands last June.

Dr Shillington, who now makes his home in Freeport, Grand Bahama, became the first volunteer under the Caribbean dental aid project sponsored by the Canadian Dental Association and the Canadian Executive Service Overseas (CESO).

The former Royal Canadian Dental Corps officer answered a call for help from the administrator of Turks and Caicos Islands during the temporary absence of the only local resident dentist.

The islands are part of a chain situated southeast of the Bahama Islands. Women, children and the aged predominate in the population of about 6,000 as most of the able-bodied men go overseas to work.

The islands' dentist has an office in

Cockburn Town, the capital on Grand Turk Island. Periodically, he also visits South Caicos which has a medical clinic with a small dental operating room.

Many of the children seen by Doctor Shillington had mottled enamel. More than half required no fillings or extractions but calculus was widespread and there were many cases of anterior open bite, for which there was no apparent explanation.

Despite the lack of modern equipment and facilities, Doctor Shillington was able to alleviate much pain and discomfort for many of his patients. He also praised the islands' dentist for carrying on a practice under trying circumstances.

Four more Canadian dentists are going to another Caribbean island, St. Lucia, during the early part of 1971. Further requests for aid are also expected from other islands. Readers who would like to volunteer their services should contact the executive director of the Canadian Dental Association.

THE DIAGNOSIS OF REMOVABLE PARTIAL DENTURE COMPLAINTS

LIEUTENANT-COLONEL P. S. SILLS, CD, DDS.



Introduction

One of the most important and yet neglected steps in removable partial denture therapy is the management of post-insertion complaints. Invariably, upon the insertion of the prosthesis, the dental officer is confronted with adjustments. Some of these complaints can be diagnosed accurately and corrected simply while others may lead to failure of the case because of misdiagnosis and improper treatment.

In making the diagnosis of a complaint the dental officer may not be helped by the terminology used by the patient to describe the symptom. In most cases the complaint may be far removed from the cause. To arrive at an accurate diagnosis, it is necessary to carry out a thorough examination and to question the patient carefully on the symptoms of the complaint.¹

This paper will discuss some of the more common problems encountered during the post-insertion phase, such as:

- pain involving the remaining natural teeth;
- tissue lesions;
- denture instability; and
- miscellaneous complaints.

Pain - Remaining Natural Teeth

Pain involving the remaining natural teeth can be extremely serious since it usually indicates that a continuous load in excess of the physiological limit is being placed upon the tooth or teeth concerned. With this type of complaint, the patient must be questioned about the incidence, nature and duration of the pain.² The best approach with complaints of this nature is to make a routine inspection of the possible sources of

irritation as well as the technical limitations of the appliance and eliminate the possible causes.

Undetected Caries or Leaky Filling. If the pain is localized and continuous with the denture in and/or out of place, the tooth concerned must be examined for evidence of a carious lesion or a deep-seated filling. If these are eliminated and the pain still persists, the partial denture can be considered to be the causative factor.

Continuous Pain during Insertion and Removal. Pain of this nature may be caused by the retentive terminal of a clasp exerting excessive pressure and not being automatically reciprocated by the opposing bracing arm. To provide adequate reciprocation, the bracing arm must contact the abutment tooth at approximately the same time as the flexible retentive arm flexes over the contour of the tooth into the desirable undercut area. While in position and during function, the bracing arm must be in the same relative plane as the retentive arm in a gingivo-occlusal relationship to provide the best reciprocal action.³

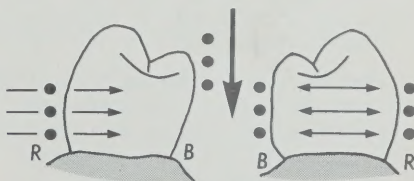


Figure 1. The bracing arm must be in the same relative plane as the retentive arm.

The complaint is diagnosed if the pain disappears upon removal of the appliance.

Pain Associated with Movement of the Appliance. In a distal extension situation, the placement of an occlusal rest distal to the central axis of the posterior tooth may cause pain of the abutment tooth. When movement of the base occurs in function, the force exerted on the tooth can be compared to that of a precision-fitted wrench causing the tooth to tip or pull distally. This abnormal force can result in tooth mobility, bone loss and denture movement.⁴

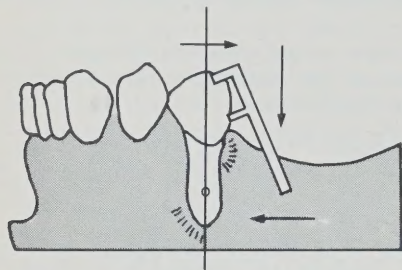


Figure 2. The placement of an occlusal rest distal to the central axis may cause pain of the abutment tooth.

In a free-end extension situation, the use of a cast circumferential clasp on the posterior abutment in conjunction with a denture base that does not provide supporting contact with the underlying tissue will cause pain of the abutment. In function, this lack of intimate contact creates a torquing stress transmitted to the tooth by the rigid clasp.³

Improperly designed weak minor connectors may exert a torquing lateral thrust on an abutment tooth when the full occlusal load is applied. The lateral force created may cause sensitivity and periodontal involvement of the abutment tooth in conjunction with gingival impingement of the adjacent tissues.⁵

Pain associated with movement can sometimes be traced to an ill-fitting rest. If the appliance is rocking on an occlusal rest, pain will be detected in the supporting tooth during movement.²

A patient wearing a free-end extension partial denture may sometimes complain of a wedging sensation of the remaining natural teeth with particular sensitivity of the posterior abutments. The cause can be identified with the teeth being locked into the denture by the rigid parts of the denture.

When guiding planes are used in conjunction with free-end extension partial dentures, they should be used in moderation. The elements of the denture that contact the guiding surfaces of the teeth should be freed from maximum contact in order to permit functional movement of the denture without a torquing action on the teeth.⁴

Pain and/or Irritation around Standing Teeth and their Investing Tissues. Tissue irritation is frequently observed around the gingival margins due to faulty designing or careless fabrication. Gingival irritation may be due to the following causes.

- Failure to block out the gingival sulcus area on the master cast prior to duplication where lingual or palatal plates are to be used. In these cases, the feather edges of the connector compress the gingival tissues causing strangulation. The blockout should be uniform and a minimum of one millimeter in width and depth.
- If a lingual or palatal bar is placed with its superior border less than 2 to 3mm. from the gingival margins of the remaining natural teeth, food debris may be packed between the bar and gingival margin or the tissue may be traumatized by movement of the denture.
- Gingival irritation in some cases can be caused by connecting vertical struts (minor connectors) or the retentive arms of clasp bars which do not cross the tissue at right angles.
- Many distal extension partial dentures initiate pathosis at the disto-gingival regions of the most posterior abutment tooth. Since metal is clean and compatible with hard and soft tissues, all tooth structures on the distal surface of the tooth should be contacted with a thin metal plate that extends 1 to 2mm. onto the soft tissues. This shoe will increase cleanliness and prevent mutilation of the den-

ture base which results in a space at the tooth-mucosa junction.

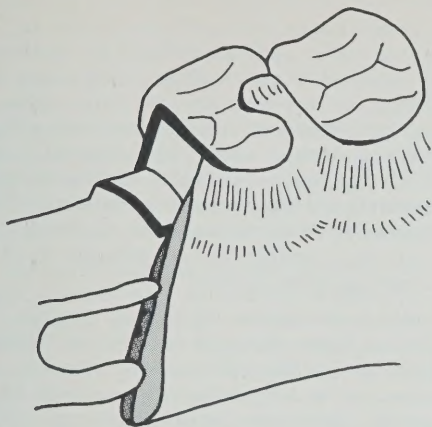


Figure 3. Prepared tooth structure on the distal surface should be contacted with a thin metal plate that extends 1 to 2mm. horizontally onto the soft tissues.

Pain from Electrolytic Action. In such cases, pain is normally encountered with an abutment newly restored in amalgam and a dissimilar denture alloy present. In the electromotive series, both chrome cobalt and gold are sufficiently apart from amalgam to provide electrolytic stimulus. When it occurs with chrome cobalt, the pain is very transient which may be due to the passive film of chromium oxide that is developed on the surface of the chrome cobalt alloy after a very short period in the mouth.²

Tissue Lesions

Tissue irritation may occur anywhere on the denture-bearing areas and the associated soft tissue reflections. Frequent areas of soreness are the peripheral borders, crest of the ridges, anterior palatal bearing areas and low frena and/or muscle attachments.

Some of the more common tissue lesion sites and their causes encountered with removable partial dentures are identified.

Irritation at Base Peripheries. A break in the tissue or a localized area of ulceration at the peripheral border may be identified with over-extension of the denture base; however, a sharp or

roughened border may cause a laceration of the adjacent tissue.⁶

Before any reduction of the denture periphery is undertaken, it is important to check the occlusion in all mandibular positions. Any abnormal occlusal interference will produce an anterior and lateral thrust on the mandibular denture, resulting in a peripheral irritation of the mandibular lingual area by a lingual connector.¹

Any non-rigid connection between denture base(s) may cause peripheral irritation. This lesion is produced by a continual flexing of the major connector during function with subsequent rolling of the denture base. Major and minor connectors must be designed to provide strength without bulk.²

A painful peripheral irritation may occur in free-end extension areas where the mucosa has not been placed in a supporting form by impression techniques. Recording these areas simply in their anatomic form permits the denture base to move from the narrower, higher area of the ridge to the broader lower region under occlusal function. This uncontrolled movement results in excessive compression of the mucosa and rapid resorption of the bone because of lack of intimate adaptation between the tissue surface of the base and the underlying tissue.⁷

Irritation of the Crest of the Ridge. This complaint is more common in free-end extension than with tooth-borne partial dentures since the ridge is taking a higher proportion of the occlusal load. Irritation directly beneath the denture base may be attributed to several causes.

- Over-compression of the tissue during the impression phase may produce pain beneath the compressed area. Pain arising from this cause will be continuous if the clasping is rigid enough to prevent the denture base from easing off the mucosa when not in function. If the clasping is flexible, the denture base will bounce or rock intermittently during function.²
- An occlusal prematurity in centric occlusion will cause

a localized pressure beneath the prematurity with subsequent pain and irritation.

- Any occlusal interference in eccentric excursions may cause pain over a widespread area on the same side as the interference with subsequent movement of the denture base on the opposite side. In unilateral extension cases, the occlusal interference will cause an abnormal torquing force on the retained teeth on the opposite side.

Irritation of the Palatal Bearing Area. Patients who have been wearing ill-fitting partial dentures with extensive acrylic bases normally present abused tissue in the palatal area. The soft tissues are actually trapped between the ill-fitting base and the underlying bone. The inflammation is a response to irritation from movement of the denture.⁸

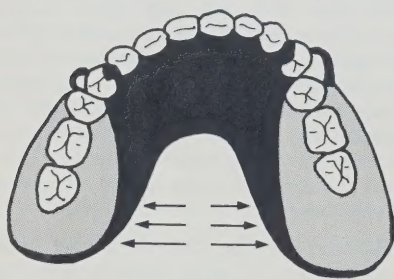


Figure 4. The use of a horseshoe connector encourages movement of the open ends during function, causing irritation of palatal slopes of the residual ridge.

McCracken however considers the design of the horseshoe connector (metal or acrylic) to be one of the greatest contributing factors to the abused tissue of the palatal area. He feels that to be rigid, the U-shaped connector must have bulk where the tongue needs the most freedom - in the rugae area. Without sufficient bulk, this design leads to increased flexibility and movement at the posterior open ends of the connector. The movement is directed towards the palatal slopes of the residual ridges causing continual irritation during function.⁵

Denture Instability

One of the most common complaints is that the denture moves during function.

Osborne states that if the cause is occlusion, the patient should be questioned whether displacement occurs unilaterally or alternately on both sides. If the displacement occurs unilaterally, then the occlusal error will normally be found on the opposite side of the mouth, to where the displacement occurs. If the displacement alternates from side to side occlusal deflective contacts will be found on both sides.²

If no error can be detected in the occlusion, excessive movement may be due to lack of sufficient guiding planes prepared at widely separated points in the arch. Point to point contacts between the denture and the major abutments will permit the denture to be dislodged in one of several directions. If guiding planes are prepared parallel to the path of insertion, they will furnish an intimate firm contact between the teeth and the denture at whatever position the denture assumes. This mutual support between the teeth and the denture is effective in stabilizing the denture and limits it to a one-direction movement; that is, the path of insertion and removal.³

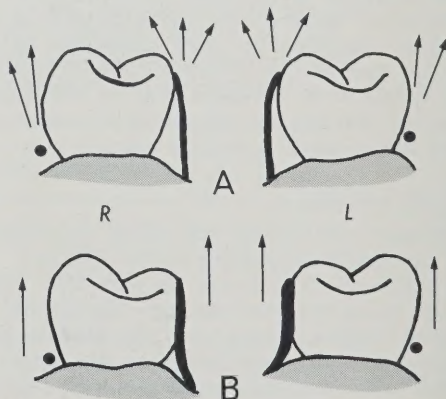


Figure 5. Point to point contact A permits denture to be dislodged in one of several directions. Guiding planes B ensure controlled displacement.

In some cases, movement may be due to the retentive terminals of clasps not

engaging the desirable undercut area sufficiently to resist reasonable dislodging forces. This complaint is most commonly encountered with partial dentures employing combination clasps (wrought retentive arms). After a period of time, the patient may complain of looseness of the appliance, particularly during function. In these cases the wrought retentive arms become distorted and lose their intimate contact with the retentive zone because of continual insertion and removal of the appliance.

Under-extension of the denture base peripheries may encourage movement, particularly in distal extension cases. In order to provide maximum stability and retention, the total area covered by the denture base should be as great as possible and extended to the limit of tissue tolerance or the junction of the movable and immovable tissues. In distal extension situations, the most important areas to be considered during the impression phase are the retromolar pad and the buccal shelf in the mandibular arch, and the hamular notch and the posterior palatal zone in the maxillary arch. In addition, the impression material should record the resilient tissues in their supporting form. A denture base made to the anatomic form exhibits less stability under rotating forces than a base processed to a supporting form.⁹

Movement may also be associated with over-extension of the denture base. In this instance however the movement is generally associated with peripheral tissue irritation because the appliance is held rigidly in place by its components. If no pain is present, over-extension can be identified by movement of the denture when patient is asked to open and close the mouth as widely as possible.

Miscellaneous Complaints

Food Collecting Beneath the Denture Base. One of the more common and annoying complaints to the patient is food particles collecting beneath the denture. This fault may be attributed to one of several defects in denture construction, such as: under-extended bases; improper thickness of a flange; occlusal inter-

ference causing a rocking of the denture and a lack of beading of the borders of a maxillary major connector.

Food Lodgement Around the Appliance. This complaint can be identified with two main causes. Steffel has pointed out that most removable partial dentures are over-designed and the mouths are under-prepared. The use of complicated components such as double lingual bars, continuous clasping, reverse back action clasping and asymmetrical connector designs should be avoided with most patients. The design of the denture should be kept as basic and simple as possible.

More often this complaint can be traced to improper oral hygiene measures being carried out by the patient. The patient must accept the responsibilities and limitations imposed by a partial denture restoration.¹⁰

Cheek Biting. Cheek biting is not an uncommon complaint, particularly in distal extension cases. The lesion is normally due to insufficient horizontal overlap existing between the maxillary and mandibular posterior teeth. Such a lack of overlap causes the buccal mucosa to be caught between the occlusal surfaces of the teeth. If this is not the reason, the cause may be attributed to improper shaping of the buccal flanges of the denture base or insufficient space between the tuberosity and retromolar areas.¹¹

Gagging. With maxillary removable partial dentures, the most obvious cause of gagging is the extension of a palatal connector or denture base beyond the vibrating line (the junction of the movable and immovable tissues of the soft palate). In addition to gagging, irritation of the vibrating zone will be observed due to the rigidity of the appliance. On the other hand, the presence of a shallow posterior palatal seal or a space between the denture base and underlying tissue will cause a tickling sensation during function and stimulate gagging.

Nausea may also be produced by the use of thick, narrow palatal bars near the vibrating zone. Posterior palatal bars or straps should be wide and thin rather

than thick and narrow, and beaded at the posterior borders to provide positive contacts with the underlying tissue.

With mandibular removable partial dentures, any technical defect which interferes with normal tongue position will stimulate gagging. These defects include anterior and/or posterior teeth placed too far lingually, over-contoured or over-extended lingual flanges and thick lingual connectors. Such faults cause an encroachment of normal tongue space and the tongue itself will be directed posteriorly into the pharyngeal space during its functional and resting positions.

Burning Sensation. The complaint of burning sensation is not near as common with partial dentures as with complete dentures. It is important to be certain that there is nothing technically or biomechanically wrong with the appliance, and to check on the stability, retention, occlusion and the possibility of impingement on the incisive papilla or mental foramen region. Burning sensations have been encountered in patients with avitaminosis, endocrine disturbances and females during menopause.²

Summary

There are three cardinal rules that should be considered when diagnosing removable partial denture complaints.

1. Be aware of the physiologic and anatomic limitations of the oral cavity.
2. Do not rely completely on the patient to present helpful information in diagnosing the complaint.
3. Consider any complaint as a technical defect rather than

a psychological shortcoming until proven otherwise.

The writer claims no originality for the information presented in this paper nor was it his intent to discuss all the possible complaints and their causes.

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The Texas Dental Journal proposes a series of nouns of multitude in the dental field: "A pocket of periodontists, a band of orthodontists, a culture of endodontists, a drill of dentists, a swell of oral surgeons, a cell of oral pathologists, a balance of prosthodontists, a clutch of gnathologists, a giggle of dental assistants, a block of anesthetists, a flora of hygienists."

Ninth Annual CFDS Bonspiel.

CFB Borden . 26~27 February



No matter how you describe this year's bonspiel, the final word to sum it all up must be "successful". From every aspect this word inadequately describes the festivities. The Ninth Annual was the largest bonspiel of any year with 40 rinks made up entirely of dental personnel (at least dental at heart, for the week-end). However, the credit for making this a successful 'spiel from both a curling and a social standpoint must go to the participants themselves. Without the support of such rinks as the two that came from Europe - one from Lahr and one from Baden-Soellingen - not to mention the first dental rink to raise its head from the far west coast of British Columbia, or any of the remaining rinks from all across Canada, the bonspiel couldn't take place. Although there were 40 rinks participating in the bonspiel, it was necessary to seat 225 people at Saturday's banquet. It was the biggest banquet the bonspiel ever boasted.

Special thanks must go to the many people who at times willingly and unselfishly worked under adverse conditions to ensure the bonspiel's success. Special thanks are extended to the CFB Borden transport section without whose help our shuttle service would have broken down before it got started. A note of appreciation is extended also to Sgt Ron Danyluck. His talent on the guitar, coupled with his vast store of songs kept the entertainment lively during the bonspiel.



'A' Event

Capt MB Fisk
Cpl JA Clint
MWO EE Mazerall
Sgt RW Danyluck

*The Wansbrough Trophy
presented by BGen GC
Evans.*

Runners-Up

Capt DA Graham
Capt WA MacInnis
Major HW Brogan
CWO JH Sadler

'B' Event

Sgt RS Walker
Capt RJ Fennell
Cpl RL Solomon
LCol NA Butcher

*The RCDC Officers Trophy
presented by BGen Evans*

Runners-Up

LCol PS Sills
LCol AG Andrews
Major JF Begin
Capt ED Cragg



'C' Event

Major WR Collier
*(with WOs and Senior
NCOs Trophy)*
Capt RCA Fearon
Capt P Kozak
Sgt WE Tweed

Runners-Up

MWO JF Kennedy
CWO TL Batten
Sgt AJ Tait
WO JF Heard

Oh well, there's always next year
and this food sure looks good...



He blew it again!
I wonder how he'd
like a posting...
Ungava Bay for
five years??



Hope he won't see this
little trick...



Look at my broom!
12 bucks and a
permanent out-turn!!

13 Dental Unit

by Sergeant E.S. Beattie, CD.

Didn't Wait for Spring

The CFB Trenton clinic operated at reduced capacity during March. The base C.E. section painters took over with an early paint-up, clean-up exercise. The new decor is fresh and quite amenable to the clinic atmosphere.

The Wheat ...



Major H Griesbach received his completion diploma from Capt WA Monroe Jr, DC, USN, the Executive Officer, after a one-week oral pathology course at the Naval Dental School, Bethesda, Md., in January. (Official USN Photo).

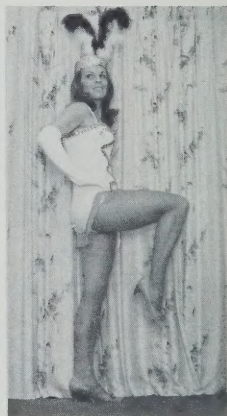
Col WR Thompson gave instruction on emergencies in the dental office to 40 civilian dental assistants taking an evening certification course with the Bay of Quinte Dental Society ... Major H Griesbach and Cpls WR McIntosh and GE Sykes gave lectures and demonstrations on sterilization procedures, function and care of dental instruments and equipment to 25 civilian dental assistants as part of a course provided by Cambrian College in North Bay ... Col Thompson and MWO RG Hopkins made their annual inspection and repair trip to CFS Moosonee during the week of the winter carnival at that station. The trip to Moosonee is usually extended due to railroad timetables. This time they were passengers on one of the aircraft which flew the musical entertainment group from Toronto to Moosonee. MWO Hopkins is commended for completing all

the servicing and repairs in a short time (with the festivities as a diverting background), thus enabling them to return to Toronto in an early aircraft and avoid the bad weather ...

and the Chaff ...

The snow storm which suspended treatment at CFB Clinton in January also stranded MWO Hopkins at a service station near Lucan for two nights and a day while enroute to repair equipment at CFB Clinton. His wife Betty accompanied him on the trip. She has now decided to remain at home and wait for summer weather before travelling again ... Mrs F Brown of the CFH Kingston clinic was among those seeking warmer climes. Despite several days of bad weather, she enjoyed a seven-day Caribbean cruise ... Sgt(W) Bev Gilkes is looking for something more permanent. After the "big snow" she made a car trip to Florida to select her place in the sun ...

Capt PP Psaila's wife Jean was a member of the high-stepping chorus line in the show "Yesterday, Today and Tomorrow", produced by the CFB Trenton Women's Auxiliary in aid of the Trenton-Brighton School for the Retarded.



Cpl PR Coss missed his regular ride to work during the latter part of March. His new Japanese Mazda was stolen from in front of his apartment block. It was one of two taken that day from CFB Petawawa ... While on the Cosses, Sharlene, Cpl Coss's wife, a new mother in January and also a school teacher, was chosen as the Snow Queen for the 1971 CFB Petawawa winter carnival. She took

over from Sgt CSB Heather's wife Rita, the carnival Snow Queen last year ... LCol WW Anglin hosted a party at his home in Belleville for members of the unit at CFB Trenton on the occasion of the retirement of Major JE Stansfield. Those attending enjoyed a hospitable and pleasant evening. Major Stansfield states that he is opening a practice in Belleville and will welcome visitors.

Sports

At CFS Moosonee, Capt BW Yates is chairman of the Officers' Mess entertainment committee as well as a member of the station entertainment committee and was greatly involved with the planning and organizing of the station winter carnival. The station provides four teams, one each from the Officers' and Sergeants' Messes and two from the Junior Ranks Club. These teams compete

against each other in a total of 30 different events. A band was provided from Toronto for five consecutive carnival dance nights.

Lt LR Hatcher, his wife Marlene and other members of the Batawa Ski Club travelled in three buses to St. Agathe, Quebec, for a week-end of skiing. They departed during a heavy snowstorm and arrived at St. Agathe at 4 a.m. After a short sleep, they travelled a further 25 miles from the lodge to the slopes of Mont Tremblant. An accident-free week-end was reported.

Correction. Capt CW Kearn's rink represented Base Petawawa in the Zone 4 curling bonspiel at Ottawa, 4-6 January in lieu of WO JE Clarke. The rink was eliminated after five games.

From Kingston, the word on curling is: "Wait until NEXT year!"

• • •

12 Dental Unit

by Lieutenant D.E. Fraser.

People Patter

On 12 February the members of the unit gathered in the Party Room of Moosehead Breweries to say farewell to WO Glen Jennings, posted to CFB Valcartier. Col SG Bagnall presented Glen with a gift on behalf of unit personnel. Glen has spent 20 years serving with the Dental Services which included postings to such exotic places as Egypt, CFDS and Europe and has now taken up new duties as chief clerk at CFDEE.

Capt L Hudgins and Sgt J Kay are getting an early start on this year's tan as they accompany the 2nd Bn RCR on Exercise NIMROD in Jamaica. Rumours are that the dental team will be located deep in the Jamaican jungle ... In Cornwallis, Capt R Salois conducted a French language test of base personnel during January ... Capt and Mrs Cliff Murray participated in a play put on by the Junior League of Halifax. Cliff and Glenda enjoyed acting in the play which realized \$9,000 for community projects

sponsored by the league. They rehearsed four nights a week for a month and according to Cliff, he has paid the baby sitter's way through school in baby-sitting fees ... A welcome is extended to Sgt Wilf Wylie who joined 12 Dental Unit as supervisory clerk on his return from Europe. Wilf is not convinced that this palm tree area was his first choice of posting.

Sports

Capt D Rowat, CFB Summerside, was a member of the ski team which won the Zone 7 and 8 alpine ski championships in Halifax ... Major "Flash" Boucher, a member of the CFB Halifax hockey team, dazzled local fans in Chatham when he scored five goals in a recent hockey game ... In Halifax, Major H Amos coaches a women's intermediate volleyball team as they prepare to play in the Nova Scotia championships. He is also assistant coach of the CFB Halifax volleyball team.

12 Dental Unit Annual Bonspiel

On 28 January, Col SG Bagnall opened the first annual 12 Dental Unit Bonspiel at CFB Cornwallis with nine teams participating: four from Halifax, two from Gagetown and three from Cornwallis.



"A" Event was won by a Halifax rink skipped by Capt M Blasseti with Major NH Andrews, Capt D Fiolek and Capt R Woodworth rounding out the team.



"B" Event was won by what was rumoured to be a "stacked rink" from Halifax, skipped by LCol GE Windsor with Capt C Murray, Capt G Gunther and Capt E Mac-Innis.



A host team won the "C" Event because they slept at home and remained more alert than members of other teams. The skip, Sgt P Whynott was ably assisted by MWO A Field, Capt R Salois and Sgt K Delmage.



Col Bagnall, Major J Jolly, MWO W Bennett and Sgt P Dumas combined to win the consolation prize. Col Bagnall said he wanted to lose the first three games so he could pick the potential curlers for the CFDS Bonspiel.

The bonspiel concluded with a banquet held at the Cornwallis Sports Centre at which time the prizes were presented by Col Bagnall.

REORGANIZING. *I was to learn later in life that we tend to meet any new situation by reorganizing; and a wonderful method it can be for creating the illusion of progress while producing confusion, inefficiency and demoralization.*

from PETRONIUS ARBITER (circa A.D. 60)

1 Dental Unit

by Master Warrant Officer
E.E. McFadden, CD

Preventive Dentistry

On 20 January, Major PR McQueen and Pte SE Greene attended a lecture given by LCol JVP Chatwin to the Dental Staff of the Ottawa School System. The questions and discussion stimulated by the meeting resulted in a good exchange of ideas.

Sports

Dental personnel in the Ottawa area participated in the first annual unit

curling bonspiel held 26 March at the Uplands Curling Club. The games were closely contested with eight teams taking part.

The winning rink was MWO Tom Sullivan's with MWO Earl McFadden third, Capt Myron Cherun second and Pte Dawn Duncan lead.

The winners of the special prize were the rink of Sgt Dick Innis with MWO Colin Adams third, Miss Lola Hyndman second and Capt Floyd Jackson lead.

CFDS School

by Warrant Officer P.D. Peterson.

Visits

In January, the Governor General and Mrs Michener visited CFB Borden. Part of their itinerary included a review of displays demonstrating various other ranks trades training in the Canadian Armed Forces. To explain CFDS training, Capt DA Graham and a team of six CFDS personnel set up displays which included: Cpl JM Walker demonstrating dental laboratory procedures and training; Cpl JA Clint demonstrating dental equipment maintenance procedures and training; Cpl RG Duffield demonstrating dental field equipment; Sgt DW Mason demonstrating the fabrication of mouthguards by a PL6 Dental Assistant; WO JG MacDonald demonstrating the duties of a PL6 Dental Therapist and MWO GEC Bradley demonstrating the Preventive Dentistry training of a PL6 Dental Assistant.

Our Director General, BGen GC Evans was welcomed during his visit from 24 to 28 February, ostensibly to inspect the school and interview the personnel. However, on his return trip from Borden to Toronto he was overheard to say that the bonspiel had been great.

Other welcome visitors during the last week in February were Major M Deyette and Capt RW Bowness, career managers for officers and men respectively.

Visits which have developed into yearly events during March were, firstly, Dr Ellis and the 1971 dental public health class from the University of Toronto to study the training and duties of dental auxiliaries, especially those of the dental therapist and the CFDS Preventive Dentistry program and secondly, Dr WJ Coleman and twelve civilian practitioners from Sudbury to tour the school training facilities, and thirdly, the third year dentistry students from the University of Western Ontario on a tour of treatment and training facilities.

LCol AG Andrews, the Base Dental Officer and CFDS Oral Surgeon, was called upon to provide his specialist services to the CFB Cold Lake dental detachment during the latter part of January. It is rumoured that the next unit to request his services during the winter months would probably receive faster consideration if the unit were situated below the 40th parallel.

As one of the leading North American specialists in prosthodontics, LCol PS Sills once more found himself travelling about the country. This time it was to attend the American Prosthodontic Society meeting in Chicago, 11-13 February. We won't mention his trip to Vermont with his wife after the Bonspiel when they got snowed in. However, with the help of the National Guard they got back before he was classed as a deserter.

As is so often the case, Col LG Craigie had the point driven home that not all of his duties as Commandant of the CFDS School restrict him to the confines of CFB Borden as he travelled to Training Command Headquarters in Winnipeg for a liaison visit from 17 to 19 February.

Marcel Beauvais Posted

When the CFDS opened in June 1957, it was discovered that five items were required for the school to function properly. Four were reinforced cornerstones to support the workload of the building and the fifth had to be an inspired and dedicated "lab rat". This man was found and posted to the school in September 1957 and has been continuously employed at the school ever since.

We feel that his 13½-year tour at our hallowed halls of learning deserves special credit. Further, we would all like to join in wishing MWO Marcel Beauvais *bon voyage* and every success in his new posting to CFB St Hubert, Quebec. Well done, Marcel!

Dental Detachment Cyprus

Update

In January the detachment was visited by Major V Lanctis on a three-week stay and by BGen GC Evans accompanied by LCol DH Protheroe and Capt RG Peebles. Most of February was rainy and cold with

little clinic activity due to the impending Canadian Contingent rotation. Sgt R Todd returned to Canada in early March and the detachment now consists of Capt JC Steel, Sgt H Ayerst and Cpl D Calnen.

11 Dental Unit

by Sergeant R.S. Walker, CD.

Unit Conference

A unit conference for dental officers was held at CFB Esquimalt 12 March. This was a trial conference and it was immensely popular and very successful. It gave the dental officers of the unit an opportunity to air their views and iron out any administrative or dental service problems that existed. LCol JVP Chatwin from DGDS was present and gave a presentation on Preventive Dentistry to the group.

New Detachment

CFS Masset will soon become a full-time

detachment with new dental facilities expected to be ready in the fall.

A mobile dental van is currently being used by dental teams on temporary duty trips to Masset as the old dental accommodation was dismantled last year. This van will remain in Masset for use by the full-time dental staff until completion of the new dental clinic.

Sports Aplenty

Sgt Dick Walker won the low net in the Zone I Canadian Forces Golf Association Monthly Medal Tournament 18 March ... Golf??? GOLF??? ... Capt Erik Rosengart

was a member of the CFS Holberg badminton team currently competing in Esquimalt in the zone finals ... no results at press time ... Capt Frank Margetts reached the finals of the same tournament in the Esquimalt play-downs but was unable to compete in the zone finals ... Cpl Skip Solomon was a member of the CFB Comox hockey team which won the zone finals in Esquimalt in March and then travelled to Borden to participate in the Nationals ... CWO John Greco attended the CFDS Bonspiel at Borden in February as a spectator (first time) and enjoyed himself so much that he has volunteered his services as manager/coach for both the 11 Dental Unit golf and curling teams in the future.

Vancouver Island Cat Fanciers

Cpl Arnie Alkenbrack has a unique appointment; he is vice-president of the Vancouver Island Cat Fanciers. This club, organized last May, held their first international cat show on 13-14 February in Sidney. The show was a great success mainly through Cpl Alkenbrack's keen interest and initiative.

Capt Jim Fennell entered his cat "George" in this show and won eight rib-

bons, three rosettes and three other prizes, including first in Best of All Breeds, first in Long Hair and a second in Short Hair.

Incidentally, one of the entries was an ex-movie star cat "Freddie the Free-loader" who was left in Victoria by Walt Disney Studios on completion of a movie here in 1968. However, despite all of Freddie's acting talents, Capt Fennell's George beat him for first place twice.

This show attracted entries from as far east as Quebec and several from the U.S.

Where Are They Now?

Sgt Dick Walker, 11 Dental Unit Associate Editor, is currently accumulating a list of former dental services personnel now retired and living in B.C. He feels that the whereabouts of "lost souls" would be of interest to readers who, while on holiday, etc., may desire to look up old friends.

The assistance of our readers and other Unit Associate Editors would be most appreciated so that a complete list can be prepared.

35 Field Dental Unit

by Sergeant C.W.J. Powell, CD.

Visits

BGen Garth C Evans, DGDS, accompanied by Capt RG Peebles, arrived in Lahr on 25 January enroute to inspect the dental detachment in Cyprus. They left for Cyprus the next day accompanied by LCol DH Protheroe and were met on arrival by Major V Lanttis, on temporary duty with the detachment. Since the minimum time for a visit to Cyprus is seven days, it was possible to work in a week-end trip to Beriut. The Lebanese economy was strengthened considerably by visits to the gold market, Casino du Liban, etc.

Following his return to Lahr on 2 February, BGen Evans inspected 35 Field Dental Unit facilities at Lahr, Baden-Soellingen, Soest, AFCENT and SHAPE.

On 3 February a cocktail party and dinner was held in BGen Evans' honor at the Black Forest Officers' Mess which was attended by MGen DC Laubman, Commander Canadian Forces Europe, Col GH Sellar, Commander CFB Europe, Col RB Irwin, Regional Surgeon, 35 Field Dental Unit officers and civilian dentists and their ladies.

BGen Evans and Capt Peebles departed Brussels for London England on 11 February. Their activities in England are not known and can only be presumed.

War Story

35 Field Dental Unit personnel had their first taste of field training with 4 Canadian Mechanized Battle Group in

January. The concentration was held in Grafenwohr, east of Nuremberg and was a real trial for the dental assistants and laboratory technicians who had been hastily trained as drivers. Driving time was approximately sixteen hours except for "Scosh" Pasley who had difficulties reaching the controls and spent 48 hours enroute.

Major JAR Fortier was in charge of the dental augmentation group which included Capts JW Montgomery and EC Schroeter, WO JAJ Fret, Sgts LI MacLean and CSTC Sabine-Pasley and Cpl RM Haiplik. During the exercise this group performed Phase 1 preventive procedures on available troops in addition to their normal duties. The result was that a number of unit COs have requested that this portion of the preventive program be carried out in the field in the future.

Sports

Two rinks comprised of Major Bob Fortier, WO Denny Hughes, Sgt Ian MacLean, Cpls Rick Haiplik and Norm Jones from Lahr; Capt Bill Gray, WO Tom Deloughery, Sgt Russ Black and Cpl Gerry Lamon-tagne from Baden-Soellingen and Sgt Matt Hall of CFB Soest travelled across the Great Pond to participate in the CFDS Ninth Annual Bonspiel at CFB Borden.

Since no trophies were won they had problems returning to Europe but finally made it after a few days leave in Trenton.

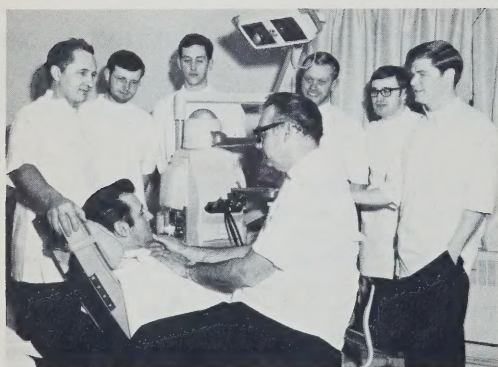
Annual Rotation

The annual rotation of unit personnel begins in May. With approximately 30% of the unit returning to Canada, a big all ranks rotation bash is planned for 1 May. Auf wiedersehen!

14 Dental Unit

by Warrant Officer J.M. Roberts, CD.

Visits



LCol AG Andrews (seated) visited CFB Cold Lake dental detachment to clear up a large backlog of difficult surgical cases and give some instruction in oral surgery. He is shown discussing a surgical case with (l to r), LCol JJN Wright, Base Dental Officer and Capts RW Rix, JAG Boulanger, CG Milne, JF Stengl and CJ Sharpe.

Prairie People

On 4 January, LCol JJN Wright presented six hours of lectures to the Calgary and District Dental Society. His afternoon presentation was on periodontics and the evening session was devoted to clinical oral pathology ... A smoldering electrical wire was the cause of lots of excitement at the CFB Calgary Currie Barracks dental clinic on 11 February. The potential fire was discovered by WO Ken Libby who quickly shut off the power source and notified the base fire department on the quiet line in the hope that they would arrive without fanfare. But both the police and fire departments arrived in a blaze of glory with blaring sirens, followed by the base hospital emergency staff. As the firemen came in the clinic with axes and extinguishers at the slope, the dental staff were caught unawares and looked on with surprise. WO Libby is now known as "Sneaky Ken" ... The clinic staff at CFB Cold Lake held a mixed to-boggan party on 17 March. The occasion

was used to present framed Certificates of Appreciation to the six air element volunteers who have completed six months service as chairside assistants. Last fall there was an acute shortage of dental assistants at Cold Lake and these volunteers responded to an appeal from the clinic for help ... The winter on the Prairies is long and cold with not much activity reported other than numerous local bonspiel victories and winter carnivals which provide everyone with the opportunity to break the regulations by trying to grow beards. Capt Wilford's beard was judged the "neatest" at CFS

Gypsumville and three bushy-faced individuals at Cold Lake - WO George Shecho-sky, WO Norm Cable and Cpl Harry Peck - made it to the finals of the Polar Carnival ... Cpl Bob Scheer recently received the Community Services Award for his contribution to the local youth program at CFB Gimli ... Capt Doug Pettigrew, although still actively engaged in judo competitions, has had to take some time away from that sport in order to carry out the duties of his new appointment of CFB Winnipeg Drug Education Officer.

Happy birthday to your teeth!

by Major HJ Nadeau, BA
DDS

Every year, your parents, wife and children wish you a happy birthday. So does your dental staff. It reminds you that, unlike your wife, you are a year older. AND SO ARE YOUR TEETH.

In April, 1968, the Canadian Forces Dental Services introduced a preventive dentistry program aimed at reducing the high incidence of oral disease in the Service. The word you must remember here is PREVENTION. To anyone needing it, treatment is good. But PREVENTION is even better.

Our ultimate objective is to achieve dental fitness for the maximum number of service personnel. And this goal is

better achieved by means of prevention.

What does it mean? Three things:

1. We want to maintain dental fitness of those previously made fit;
2. Gradually bring to dental fitness those who are not already fit;
3. Give a degree of fluoride protection to ALL service members annually; or, if you wish, give everybody his annual dose of protection against dental caries.

Our weapon in the prevention field is FLUORIDE applied to your teeth once a year.

Let's be practical. You don't have to remember all this. But you must remember your

birthday. Fair enough? Because your birthday month is when we want to see you.

We call this annual "thing" Phase I of the Preventive Dentistry Program. Call it what you like: annual recall isn't bad.

When your birthday month arrives, give us a call to arrange an appointment. Say it is for your annual recall. If you don't call us, don't be surprised, we will call you.

So before you sink your teeth into a gorgeous birthday cake, think of us. We're wishing you and your teeth a very happy birthday.

A bientôt. Your dental staff.

*Reprinted from
CFB Montreal's
"Le Parapet".*

... and Happy Birthday to us!

FOR OFFICERS, WARRANT OFFICERS, NON-COMMISSIONED OFFICERS AND MEN OF THE ROYAL CANADIAN DENTAL CORPS FROM THE MINISTER OF NATIONAL DEFENCE.

MY VERY BEST WISHES TO ALL RANKS OF THE RCDC ON THE 56TH BIRTHDAY OF YOUR CORPS, 20 APRIL 1971.

DONALD S. MACDONALD, MND.

15 Dental Unit

by Sergeant J.R. Joly, CD.

Altogether Now!



15 Dental Unit Supply Section was re-located to St Hubert Garrison from Montreal in January. The official opening of Building 70 was held 1 April. The DGDS, BGen Garth C Evans cut the ribbon with (l to r) Capt JR Savoie, WO EA Jermain, LCol G MacDougall, MWO SD Pozyluzny and Cpl LJP Nadeau witnessing the event.

Retirements

Sgt E D'Avignon of the St Jean clinic retired in February after 26 years service. A candlelight dinner was held at CFB St Jean and members of the clinic presented him with a going-away cheque and Mrs D'Avignon with flowers.

Sports



CFB St Jean clinic's hockey team, the "Voyageurs", composed of Major Fergy Houde, Capt Pocket Ayotte, Capt Regie Duford, Cpl Sandy Purich, Cpl Espo Arsen-

ault and the team's bartender Cpl Harper Rheault, recently closed up the season among the top three in the base unit league. The team will be going into summer training soon and baseball seems to the next challenge.

Capt YJ Gagnon acted as the team captain for the Mont Apica ski team which participated in the Canadian Ski Championships held at Valcartier 22 to 28 February.

15 Dental Unit had three rinks entered in this year's CFDS Bonspiel: one from St Hubert, one from St Jean and St Hubert and one from Valcartier. The rink composed of Major GI Bisailon, Major HJ Nadeau, Capt OG Lepage and Cpl Arsenault was the most successful but ran out of steam before the finals on Saturday.

Capt JL Berthiaume and Cpl JE Frechette successfully completed a Hunting Safety Course. They are now preparing for the moose season this fall.

Cpl Vince Arsenault and Sgt Dan Smith entered an automobile in the Atlantic Sports Car show held in Halifax on 30 March. Cpl Arsenault's Lotus Europa received top honors in its class. The Lotus was built by Lotus of England's Colin Chapman.



Vince states that he gets forty miles to the gallon on the highway at high speeds. Vince and his partner (from Chilliwack B.C.), do their own maintenance as well as acting as a team at sports rallies, hill climbs and the like.

DQDS

Busy Bees

Futile attempts to escape Ottawa's 173 inch snow-bound scene were made by Col GR Covey to Washington DC, LCol JC Brick to Borden, BGen GC Evans and Capt RG Peebles to Europe and Cyprus in January; BGen Evans to Borden and CWO PM Griffith-Jones to B.C. in February; LCol JVP Chat-

win to Victoria, BGen Evans to Montreal and Quebec City, LCol LA Richardson to Florida, Col Covey, Sgt CE Schmelzle and WO MA James to undisclosed destinations in March ... But have no fear, the snow's still here; it didn't disappear, while they were elsewhere.

• • •

LOST

One miniature trophy engraved "WOs and Senior NCOs Trophy 1971" from Building T-65, CFB Borden, during the evening of the CFDS Bonspiel dinner.

FOUND

One (empty) thermo jug at Building T-65, CFB Borden, after Bonspiel dinner. Owner may claim by identifying consumed contents ... and maybe returning the trophy??

• • •

Professional Training

Walter Reed Army Medical Center, Washington, DC

Oral Pathology, 8-12 February

Capt PG Arnold

Dalhousie University, Halifax, NS

Oral Pathology, 22-23 February

Major HM Amos

US Naval Dental School, Bethesda, Maryland

Complete Dentures, 5-9 April

Capt NS Misura

Fixed Partial Dentures, 1 March-16 April

Capt JDF Cormier

Canadian Forces Training

Canadian Forces Dental Services School, CFB Borden

Endodontics and Operative Dentistry, 2-25 February

Major GIJ Bisailon, Capts JG Dessureault, DK MacKenzie, RCA Fearon, G Gunther.

Oral Surgery, 14-28 April

LCol JVP Chatwin, Majors L Dombowsky, BA Gaudet, Capts MA Blasetti, EL MacInnis, HW Wilford, CJ Sharpe.

Dental Assistant PL3, 15 February-20 April

Cpls LR Street, B Hansen, GC Beaulieu, EF Barnes, TW Mountain, LW Parker, BC Rector, Ptes PD Young, MF Pounder.

Canadian Forces Staff College, CFB Toronto

Junior Staff Officers Course, 11 January-19 March

Capt ED Cragg

Canadian Forces School of Management, CFB Montreal

Advanced Management Course,

Major RH Headley 5-29 January

Major VO Bergland 16 February-12 March

Middle Management Course, 5 January-5 February

Lt B Vandervaart

Canadian Forces School of Administration and Logistics, CFB Borden

Packaging Technicians Course, 11-29 January

Sgt GM Wadden

Canadian Forces School of Intelligence and Security, CFB Borden

Security Supervisor Course, 17 February-3 March

Sgt CW Smith

Canadian Forces Medical Services School, CFB Borden

First Aid Instructors Course, 11 January-5 February

WO PD Peterson

Canadian Forces Language School, CFB St Jean

Formal French Language Course, 11 January-15 April

Cpl PE Sutherland

Training with Industry

Ticonium Co., Albany, N.Y.

Ticonium Equipment Maintenance Course, 8-12 March

Sgt BA Green, Cpl JA Wesley.

Promotions

Major:
Warrant Officer:
Sergeant:
Corporal:

JM Trepanier
RE Todd
BL Mackie, BA Gilkes
S Tasker, D Purich, WG Cudmore.

Welcome to the Dental Services

A cordial welcome is extended to: Cpl NG Jones, Cpl HL Bodfield, Pte RP Shakatko.

Retirements and Releases

Farewell and good luck to: Pte(W) LE Supple, Sgt G Sapergia, Major JE Stansfield, Sgt CVS Forsythe, Sgt E D'Avignon, Sgt FK Mackay, Cpl JW Griffiths, Pte(W) J Stephens, Pte(W) EL Joneson.

Vital Statistics

Marriages

Congratulations and many years of happiness to: Pte(W) JG Parker and Cpl YJ Boileau ... Miss Inge Therese Weskamp and Cpl MGE Williams ... Pte(W) ML Rath and Mr Kenneth Stanley Forlipa.

Births

Congratulations and may the next ones be quadruplicates:

Sons

Sgt and Mrs HE Ayerst (adopted)
Major and Mrs JE Stansfield
Capt and Mrs LR Holland
Capt and Mrs JM Cherun
Major and Mrs GR Nye
Major and Mrs DN Charles
Sgt and Mrs GG Albertson
Cpl and Mrs GJ Gallagher

Daughters

Cpl and Mrs PR Coss
Capt and Mrs JJ Campbell
Capt and Mrs F Giesbrecht
Capt and Mrs WO Donald
Capt and Mrs DA Meredith
Cpl and Mrs RM Haiplik

Bereavements

Deepest sympathy is extended to: Cpl JE Dale, MWO RK Jones, MWO GEC Bradley and CWO PM Griffith-Jones on the loss of their fathers; Sgt P Fox on the loss of his mother and to Sgt EL Schell's daughter on the loss of her husband.

Cold Cold Lake Clinic



(Left to right) Anteriors: Capt CJ Sharpe, Capt AP Charlebois, Cpl LG Bailey, Pte(W) HG Christensen, CWO JM Tapp, Major HA Pankratz, Capt JAG Boulanger, LCol JJN Wright, Cpl DG Hogan, Cpl(W) MM Daniels, Cpl MG Williams, Capt RW Rix.

Posteriors: Sgt TR Kukurudziak, Capt JF Stengl, WO NJ Cable, Cpl C Farr-away, MWO JA Fraser, Cpl GJ Gallagher, Cpl J Van Hemert, Cpl AH Peck, WO G Shechosky, Capt CG Milne, Cpl ZW Mitrikas, Cpl EC Poitras, Cpl AE Armstrong, Sgt LH Pion, Cpl GG Carscadden.

Missing: Cpl CJ McLean.

The *Review*
**CANADIAN
FORCES
DENTAL
SERVICES**
Quarterly

VOLUME TWELVE • NUMBER TWO • JULY 1971 •





The CFDS Quarterly



· Volume Twelve · Number Two · July 1971 ·

Published by authority of Brigadier-General Garth C Evans, CD, DDS, QHDS, FICD, in April, July, October and January, The Quarterly serves as a means for the exchange of ideas, experiences and information within the Canadian Forces Dental Services. Views and opinions expressed are those of the authors and not necessarily those of the Director General of Dental Services or the Department of National Defence.

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35 Field Dental Unit

Sergeant P Mehler
Dental Detachment Cyprus

Sergeant MD Longford
1 Dental Equipment Depot

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Chief Warrant Officer
PM Griffith-Jones, CD.

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COVER PHOTO

The Nineteenth DGDS Conference,
Ottawa, 10-12 May 1971.

The CFDS Quarterly may be subscribed for at
\$6.00 per year by writing to:

Director General of Dental Services,
Canadian Forces Headquarters,
Department of National Defence,
Ottawa, Ontario, Canada.
K1A OK2

Dear Mr. Editor:

Each issue of the CFDS Quarterly which you so kindly forward to me at the University is awaited with anticipation by the twelve retired members of the Corps now employed at the Faculty. It is a fine source of professional and technical information as well as a pleasant means of maintaining contact with old friends and colleagues.

The latest issue dated April 1971 was an excellent effort in all respects. The article on mercury toxicology by Corporal R.B. Scheer was particularly timely and of special interest to us because of the recent formation of a small committee to investigate this situation in our own clinics. It appears likely that an increasing emphasis will henceforth be placed on the careful handling and disposal of mercury in the dental office.

At the moment, disposal of waste mercury and dental amalgam in the dental clinics of this school is as follows:

- Scrap amalgam and mercury is collected daily from covered containers maintained for that purpose on each of the mobile supply cabinets.
- Excess amalgam removed from restorations in the mouth through the HV evacuation system is trapped in a solids collector already installed in each cubicle.
- In the present technic for dental amalgam restorations no mercury is squeezed from the mix after trituration. The only free mercury in evidence therefore is that which escapes from the capsule during mechanical trituration. This has been eliminated almost completely by the use of screw-type capsules rather than friction-type.

As a further precaution against possible hazards to staff, students and patients, a survey was requested from the Chief of Occupational Health Services of the Department of Health of the Government of Ontario. He advised that there are two methods of monitoring the situation; i.e., urinalysis of individuals and air analyses in the clinics. It was decided, therefore, that air samples should be taken in the main clinic under varying circumstances at different locations and repeated annually to determine if any build-up was occurring. Urine samples of individuals would be taken only if some special concern was indicated.

The first such survey was carried out two months ago and the report indicated no cause for alarm at present. The Threshold Limit Value (T.L.V.) for mercury for an eight-hour day, forty hours per week exposure was given as 0.10 MG/M³ of air and the limit of detection as 0.001. The highest value detected was 0.015 and this was at one of the mobile supply cabinets where the mechanical triturator was operated. Five of the nine locations surveyed gave no reading including one cubicle where an amalgam restoration was being inserted. It is now proposed to carry out this survey at the same locations each year to determine if there is an appreciable increase in mercury accumulation to a point of potential hazard.

Once more, Mr. Editor, let me congratulate you and your staff on a most rewarding and worthwhile effort and extend appreciation on behalf of all retired members here at Western.

K.M. Baird, OBE, CD, DDS, FICD, BGen (Ret'd),
Director of Clinics, Faculty of Dentistry,
University of Western Ontario,
London, Ontario.

11 June, 1971.

Dear Mr. Editor:

The oral cytology procedure recommended by many members of the profession is misleading. This screening process is really too inefficient to warrant its continued use when we can obtain precise reliable information by biopsy or referral of suspicious lesions.

According to Dr. Ortiz of the Department of Oral Pathology at the Montreal General Hospital, cytology is good to identify herpes simplex, pemphigus of the mouth and benign intraepithelial hereditary dyskeratosis. It is not, however, the diagnostic tool of choice for suspicious lesions in the mouth.

False negatives are possible and fairly common since cytology only indicates the state of the overlying epithelium. Cancer could still exist underneath the scraped epithelium or mucosa.

False positives can also occur but are more infrequent. A cytologist might be inclined to regard a badly infected wound or virus-induced lesion as malignant or suspicious.

Cytology is of most value in assessing cervical tissues (Pap test). Hormonal changes induce cellular structure changes. Thus, malignancy shows up as a variance from cell morphology as presented by the cycle. Each stage of the cycle exhibits a different normal.

Accepting that 6.6% of all cancer in Ontario was in the oral region in 1970, can we depend on a screening technique such as the oral cytology smear, knowing that false readings are possible?

It is my contention that biopsy is preferable for any lesion suggesting further investigation. A pie-shaped sample of tissue that represents the lesion, the normal and the changing interface is preferable. This should also be deep enough to give all layers of skin or oral structure.

The annual recall examination should include a thorough visual and digital examination of the tissues of the oral region. Areas of abnormal tissue health should be diagnosed by our usual methods of history, examination, differential diagnosis, referral and biopsy if necessary.

14 June, 1971.

Captain G.P.F. Greenacre, DDS,
1 Dental Unit,
Ottawa, Ontario.

* * *

Editor's note. "Cytology is indicated to screen abnormal areas that do not seem sufficiently significant to require biopsy." Oral Cancer Committee, American Cancer Society, Illinois Division. J.A.D.A. Vol. 82, June 1971, p. 1298.

Happiness is a Full In-Basket

When we prepare to go to press, there is seldom the luxury of more articles than can be printed - more likely there is a shortage which creates a flurry of last-minute scratching. Without an adequate flow of material of professional and general interest - and timely news - we cannot satisfy our readers. Raise your pens before your voices - it's your QUARTERLY - help keep it so!

FIFTIETH ANNIVERSARY -

THE ROYAL ARMY DENTAL CORPS

A Royal Warrant, promulgated by the War Office and signed by Mr. Winston Churchill, authorized the formation of the "Army Dental Corps" on 4 January 1921.

SPECIAL ARMY ORDER

No. 4

THE WAR OFFICE,

11th January, 1921

ROYAL WARRANT

Army Dental Corps

A.O. 4.
1921

GEORGE R.I.

24 WHEREAS We deem it expedient to authorize the
Gen. No. formation of a Corps to be entitled "The Army Dental
7623 Corps";

OUR WILL AND PLEASURE is that Our Army Dental Corps shall be deemed to be a Corps for the purpose of the Army Act and that the words "Army Dental Corps" shall be inserted in Our Warrant of 7th July, 1916,* defining the expression Corps.

OUR FURTHER WILL AND PLEASURE is that the conditions of service and of promotion and the rates of pay and half-pay, and the rates and conditions of retired pay and gratuity of officers, non-commissioned officers and men of Our Army Dental Corps shall be as provided in the schedule attached to this Our Warrant.

Given at Our Court at St. James's, this 4th day of January, 1921, in the 11th year of Our Reign.

By His Majesty's Command,

Winston Churchill

*Army Order 250 of 1916

Before the South African War and the First World War, dental standards for troops were haphazard and resulted in a great many men being sent home unfit for duty because of lack of dentures. Medical staffs lacked the equipment necessary for dental treatment and except for extractions of a rudimentary nature, every man was his own dentist.

Statistics gathered by the British Dental Association during these wars were instrumental in convincing the War Office that a dental service as part of the army was a necessity. Some dental services were performed early in the First World War by dental officers attached to Royal Army Medical Corps casualty clearing stations but by the

end of 1916, over 400 dental officers were serving and mobile dental units were distributed to each of the five

armies serving in France. Later, mobile dental prosthetic units were provided, one of which was a Canadian gift.

After organization in 1921, the Army Dental Corps experienced a period of steady development. With the outbreak of the Second World War, the Corps expanded rapidly to meet the dental treatment demands of an ever-increasing army spread throughout the world, commonwealth and allied forces stationed in Britain and large numbers of prisoners of war.

In 1945, King George VI authorized the title "Royal" for the Corps. In 1948 a depot and training establishment were formed at Aldershot and provided the Corps with a permanent base.

The Royal Army Dental Corps has made many contributions to dental surgery in the fields of oral and maxillo-facial surgery, postgraduate training, dental health education and research.

The motto *Ex Dentibus Ensis* - from the teeth a sword - is appropriate for a corps dedicated to conserving the fighting strength of the army by the practical method of maintaining the dental fitness of its soldiers.

Editor's note. Taken from an account of a meeting held at B.D.A. Headquarters on 4 January 1971 in celebration of the R.A.D.C. Fiftieth Anniversary and an address by Sir Robert Bradlaw, CBE, both published in the British Dental Journal, Volume 130, Number 4, of 16 February 1971, pp. 171-176.



IVth. International Oral Surgery Conference



The IVth. International Conference on Oral Surgery was held in Amsterdam, The Netherlands from 17 to 21 May. For one involved in oral surgery, the conference was most enlightening and rewarding.

The organization and implementation of all aspects of the conference were excellent, surpassing any previous convention or professional conference attended by the writer. Part of a large new congress centre with ultramodern facilities was used for all meetings. Living accommodation was excellent.

The conference was opened by Prince Bernhard of the Netherlands (*extreme left in photo*). Approximately 540 oral surgeons attended, of whom 24 were Canadian. Forty-nine delegations took part.

The scientific presentations consisted of two symposia: *The Maxillary Sinus* and *Central Non-Odontogenic Lesions of the Jaws*. These symposia were attended by all delegates. The remainder of the conference presentations were all of 20 minutes duration with four different presentations delivered simultaneously so that a choice was necessary.

In addition to the presentations, the conference allowed opportunities to meet and question numerous oral surgeons. Among the more renowned attending were Howe, Kay, Killey, Rowe and Ward of England; Obwegeser of Switzerland and Bear, Henny, Hinds, Hayward, Moose, Reozin and Walker of the United States. Other specialists such as Professor Pindborg, the noted Danish oral pathologist and Professor Harrison, an E.N.T. specialist from England, participated in the symposia. A considerable number of U.S. Forces oral surgeons attended, including Colonel Guernsey, head of oral surgery at Walter Reed Army Medical Center and Captains Terry, Kelly and Small of the U.S. Naval Dental School at Bethesda.

The Netherlands Society of Oral Surgeons is large for a country with a relatively small population. The Society is well organized and both integrated and accepted by the medical surgeons and the hospitals. There are seven dental schools in the Netherlands each with a postgraduate residency program in oral surgery.

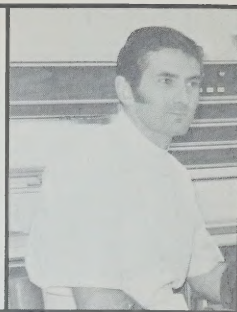
The few manufacturing displays dealt mainly with surgical instruments and scientific publications. A new disposable aspirating syringe was displayed by Astra. This type of syringe could be useful in the dental services for certain specific isolated commitments. Siemans had a display of radiographic equipment which included a new machine, the Status X. The procedure with this machine requires only one film for each of the maxillary and mandibular arches. The cone tip is placed in the mouth for the exposure and the film is placed extra orally. The tip is rotated depending on the area to be radiographed. Siemans claims that periapical radiographs would be required only for specific problem areas. This equipment does not replace their larger panographic machine as it does not illustrate the ascending rami, temporo-mandibular joints, etc.

Social functions included a golf tournament won by Dr. Paul Rondeau of Vancouver, receptions by the Netherlands government and the city of Amsterdam, a special performance of the Netherlands national ballet and an official banquet and dance. A program for the ladies allowed many excursions to places of interest.

Editor's note. Extracted from a report by Colonel W.R. Thompson, Commanding Officer, 13 Dental Unit, Trenton, Ontario.

To be ... or not to be ...

JAMES E. STANSFIELD, DDS (Major Retd.)



This is not intended to be a scientific treatise. The content of this article is not new or startling or probably of any particular interest to many readers of *The Quarterly*. It is merely a collection of some thoughts and ideas which crossed my mind as I was making the decision as to a military or civilian dental career.

For many, the decision is easily made; those who got out of the Forces as fast as possible and those who have no doubt that a military career is for them. For some this decision is not made quite so quickly or easily.

There are several things to be considered, a few of which are:

Promotion. Most military dentists have some idea of their career potential. How far do you really think you can go? Where do you obtain the greatest satisfaction and happiness: in the attainment of a certain plateau or in the challenge of the climb? Remember, some people are going to be career majors.

Specialties and Courses. The military offers more and more opportunities for specialties if you are really that good or that interested. There is something nice about being on full pay while you are going to postgraduate school. Don't forget that in the military, the courses are all fully paid for. Admittedly, you do not always get your choice.

Dental Auxiliaries. The Dental Services have many of the best available; a few poor ones, but whose fault is that?

Equipment and Material. The equipment in my private practice cost considerably more than some of the military setups but I really cannot do much more

with it. Admittedly, the chair now fits the patient and it is not necessary to kneel in his groin to reach the air syringe. Private practice does offer a more varied choice of materials and ready access to new ones which is not quite the case in the Forces.

The Opportunity to be Your Own Boss. Do you really want to be your own boss? Do you want all the responsibility and headaches that come from running your own show? Will you be content with the occasional feeling of pride which comes from doing your own thing your own way, successfully?

Life Style. What do you and your family want for your life style? Are you content to settle down, become established and call one city home or would you prefer to call Canada your home? Remember, both Victoria and Masset are in Canada. Where do you wish to enjoy your social activities: at the country club where it costs five hundred dollars for initial membership and two hundred and fifty dollars for annual dues or at the Mess where ten or twelve dollars a month provides a similar type of enjoyment?

Financial Considerations. It appears that the general concensus of opinion is that the civilian dentist has a better financial return than his military counterpart. However, it might be interesting to see the wages of a civilian dentist who worked in the same atmosphere and with the same degree of efficiency as one does in the military.

When these thoughts and others have been expanded and given adequate consideration and the decision to leave the Forces made, the type of practice desired usually also has been decided, be it a salaried position, an associate

practice, a group practice or a private practice.

For myself, having decided upon a private practice and its location, a new set of questions arose. Should one buy or take over an existing practice? Does one rent an existing office and establish a new practice or should one throw caution to the winds and design and/or build his own office and establish a new practice?

I decided that if I was going to leave the military service and those portions of it which I didn't like behind me, then I wanted to create a working environment as close to what I considered ideal for my present and future needs as I could.

First on the agenda was the selection of adequate office space. In my case the decision was not difficult as there was only one suitable location available in my chosen area. Next came many hours of pondering over office designs and equipment brochures and catalogues.

It is of considerable value to spend some time talking to dentists who have been in private practice for some time and listen to their ideas and complaints concerning office designs and equipment set-ups. No matter how much attention is paid to detail, when the final plans become reality, inevitably there will be one or two things somewhere which functioned better on paper than they do in actual fact. For what it is worth, may I say that it is not particularly wise to skimp on office decor or equipment simply because of the price tag. Too many hours of a dentist's life are spent in the office to be faced by a dull uninteresting decor or equipment that isn't really what you want. Besides that, there is something to be

said in presenting a bright, efficient and prosperous image to your patients.

Selection and training of office personnel is a challenge. The military environment offers ample opportunity to work with good assistants and occasionally you meet one that is not so good. In either case they are selected for you. Private practice is different. You are omnipotent and it can be a little shattering if you suddenly realize your assistant does not know or do things which you feel she should and you realize that no one is really to blame but yourself.

Of paramount importance in establishing a practice is good financial guidance, whether it be from a banker, an accountant, an office management company or whatever. There is too much money involved and too many ways to spend it to consider the matter lightly.

Inevitably in any discussion concerning private practice the topic turns to money. The fact remains that a dentist is in charge of a big little business and this is not altered to any degree by a dentist's dedication or lack of it to his profession.

Dealing in dollars and cents was, for myself, the biggest adjustment to be made between military and civilian practice. To put a dollar value on periods of time and various operations and still have to consider the patient's pocketbook when undertaking certain procedures was a difficult situation to get used to.

In summary, before you make any decision concerning a military or civilian career, think carefully about the many things involved. Remember: the other man's grass is always greener!

Dentist'ry

In April 1915, the Canadian Army Dental Corps establishment for each overseas contingent consisted of nineteen officers, nineteen orderlies, nineteen batmen and six horses.

From July 1915, when the Corps commenced its activities in France until 31 December 1918, a total of 2,225,442 operations were performed, including nearly 50,000 treatments for trench mouth.

EASTER ISLAND EXPEDITION

MICROBIOLOGY SYMPOSIUM

MAJOR A.G. TAYLOR, CD, DDS.



A symposium at the Institute of Microbiology and Hygiene, University of Montreal was held 26-28 April to discuss the findings of the initial phase of the expedition carried out on Easter Island in 1964* and to plan the final phase when conditions on the island are suitable.

During the three-day symposium sixty-three papers were presented, nine of which were on dental caries studies:

- *Planning and execution of dental caries studies.* G.A. Nogrady, University of Montreal.
- *Dental health of Rapa Nui Islanders.* A.G. Taylor, Chilliwack, B.C.
- *World survey on the epidemiology of dental caries.* A.L. Russell, University of Michigan.
- *Isolation and characterization of human cariogenic streptococci.* R.J. Fitzgerald, Miami.
- *Fluorescent antibody technique for identification of cariogenic streptococci.* J.M. Jablon, University of Miami.
- *Streptococci antibodies.* W. Kohler, Jena, Germany.
- *Review of the coexistence of human and animal dental caries.* A. Svihla, Camino Island.
- *Fluoride exposure of Rapa Nui inhabitants.* I. Zipkin, University of California.
- *Caries prevention in isolated populations.* J.C. Muhler, Indiana University.

The results of the dental survey** showed a DMF score of 17.67 teeth per subject. Decayed and missing teeth accounted for 94.45% of the DMF index. The average subject had only 1.4 restorations and had lost 12.01 teeth.

Causative factors which contributed to the poor dental health of the Easter Island population were determined to be very poor oral hygiene, a decrease in saliva flow and lack of restorative treatment.

The following recommendations for future dental studies on Easter Island were made:

- Record changes in DMF index (due to dietary changes upon exposure to civilization).
- Study influence of stress on the incidence of gingival infections (ANUG) previously found to be absent.
- Collect material for other investigators, e.g., plaque cultures of streptococcus mutans.
- Conduct a quantitative and qualitative study of salivary samples.
- Initiate preventive measures to reduce dental caries (fluoridation of the water supply and dental hygiene education).
- Fluoride analysis of soil samples and of extracted teeth.

Due to a recent change in the government of Chile, of which Easter Island is a dependency, it was not possible to make definite plans and select a date for the final phase. The present Chilean government has been less than receptive to any proposals for a return visit of the expedition and has been actively discouraging visitations to the island.

All expedition members expressed the hope that it will be possible in the not too distant future, to return to Easter Island and complete this extremely interesting project.

*The RCDC Quarterly, Volume 6, Number 2, July 1965, p. 15.

**Journal of the Canadian Dental Association, Volume 32, Number 5, May 1966.

A Case Report:

IDIOPATHIC RESORPTION

CAPTAIN T.M. CLARK, DDS.



A twenty-two year old nursing sister presented for a routine dental examination.

Oral Examination

Gingival tissues and oral mucosa were normal. All teeth were present and caries free. The upper left central was slightly mobile and had a "pink spot" on the lingual surface.

Radiographic Examination

A panoramic radiograph was taken revealing four impacted molars. The upper left central had a large translucency at the crown-root junction. The outline of the root was poorly defined and the entire root had a fuzzy appearance.

Periapical and occlusal films were then taken. The area of internal resorption showed up very clearly and extended from the middle of the crown approximately 5mm. up the root. The outline of the root could be seen although the lamina dura was not well defined. A number of different angulations were



Radiographic example of idiopathic resorption.

used and in no film could a root canal be observed. A bony trabecular pattern could be observed throughout the root area.

Patient History

The patient remembered falling and injuring this tooth when she was a young child. The tooth had been asymptomatic since that time. The patient was involved in a car accident during the treatment period and probably re-injured the tooth because it was now a source of slight discomfort.

Treatment

The impacted molars were removed. In consultation with other members of the clinic staff, it was decided that endodontic therapy was not possible because of the apparent absence of a root canal and the extensive resorption that had taken place. It was decided to remove the tooth and place a treatment denture for the healing and then fabricate a fixed partial denture.

Infiltration with 1.8cc. of xylocaine over the upper left incisors provided adequate anaesthesia. As might be expected, only the crown was removed with the use of elevator and forceps. However, the complete radicular portion of the pulp was removed attached to the crown. A flap was then raised and bone removed labially and apically approximately 3-4mm. in each direction. It was impossible to locate any root formation and rather than create a large defect, it was decided to close the area immediately. It is interesting to note that it was possible to place a probe right up the "root canal" in solid bone.

Discussion

This interesting case appears to be a

combination of internal and external resorption. The crown was definitely affected by internal resorption as shown by clinical and radiographic evidence. The root seemed to be affected by external resorption because of the presence of the radicular pulp, the radiographic picture and the inability to make a clinical distinction between tooth and bone.

It might have been possible to demonstrate root formation if bone had been radically removed, but for aesthetic reasons this was not deemed advisable.

According to Sullivan and Jolly,¹ replacement of structures lost, due to idiopathic resorption, may occur. This replacement is termed *metaplasia* and is found in both internal and external resorption. The amount of tissue replaced is far less in the internal type of lesion; in fact, some cases of external resorption report the cavity almost entirely obliterated by bony substance.

The cause, as the term *idiopathic* implies, is unknown. Sullivan and Jolly postulate that idiopathic resorption is brought about by any factor which can cause local destruction or change of the surface protective tissues (cementoid or odontoblasts), followed by the direct apposition of granulation tissue to the calcified surface.

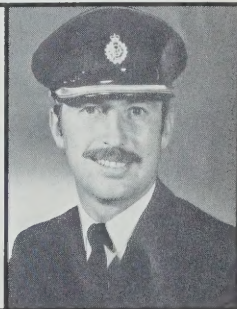
Summary

The case discussed appears to be one if idiopathic internal and external resorption. The blow suffered at an early age may have begun the process of internal resorption in the crown and the intermittent processes of external resorption and osteoid replacement in the root.

Reference

1. Sullivan, H.R. and Jolly, M. *Idiopathic Resorption*. Austral D.J., 2:193, 1957.

BLEACHING OF ENDODONTICALLY TREATED TEETH



CAPTAIN D.L. BROWN, DDS.

Patients are frequently disheartened following endodontic therapy because of darkening which often ensues. Dramatic improvement in esthetics can be gained in the majority of cases by carrying out a simple bleaching procedure.

Causes of Tooth Discoloration

Simple pulpal necrosis following carious involvement has a darkening effect due to the presence of various protein degradation products.

Trauma may cause greater discoloration than necrosis if extravasation of blood occurs. Haemoglobin released into dental tubules breaks down to form iron sulphide which contributes a dark grey appearance.

Faulty endodontic procedures may also cause discoloration as a result of:

- incomplete removal of tissue from entire pulp chamber and pulpal horns;

- failure to remove grossly stained dentin from the pulp chamber;
- failure to replace defective restorations;
- leaving sealer or gutta percha within the chamber;
- usage of staining medicaments, i.e., metaphen and silver nitrate;
- pulp chamber restoration with amalgam.

Systemic staining results from diseases such as congenital haematoporphyria or hereditary opalescent dentin.

Extrinsic staining is caused by tobacco, foods and drugs.

Most extrinsic stains can be removed by simple prophylaxis. Darkening of systemic origin is best corrected by full-crown operative procedures and intrinsic causes (necrosis and trauma) can usually be corrected or at least improved by bleaching.

Bleaching Agents and Apparatus

Pyrozone (25% hydrogen peroxide in 75% ether) can be used effectively but is explosive and nauseating.

Superoxol (30% aqueous solution of hydrogen peroxide) although highly caustic, is the agent of choice.

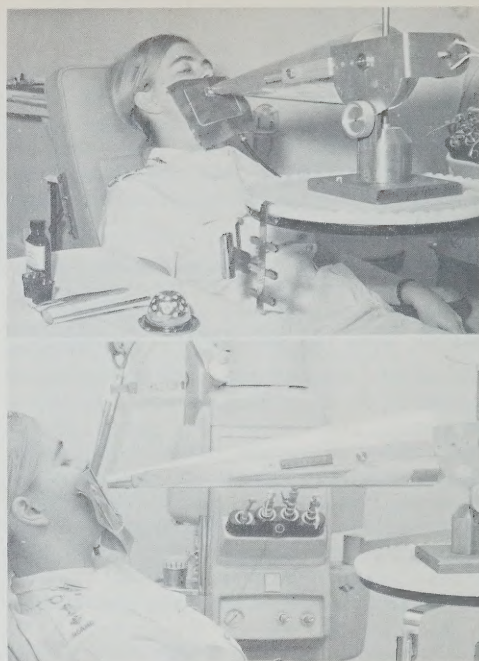
A light-heat source of design shown accelerates release of oxygen from the bleaching agent and hastens rate of decolorization or oxidation of the stain.

The illustrated apparatus effectively concentrates rays on a small area through the three-quarter inch diameter opening and eliminates the danger of exposing the patient's face. A #1 or #2 photo floodlight at a distance of two feet ensures against over-heating. Convenience features include a handle for easy removal and an adjustment for raising or lowering the angle of cone.

Technique

Select desired shade prior to rubber dam application.

To prevent seepage of the highly caustic *Superoxol* with resulting tissue damage, apply two thicknesses of rubber dam. As an added precaution, coat the



gingival tissue surrounding the tooth to be bleached with vaseline or silcote. If contact with tissue does occur, rinse thoroughly with water.

Using a round bur, freshen the internal walls of the pulp chamber to facilitate penetration of the bleaching agent. Removal of all pulpal remnants and old filling material at least to the gingival margin is essential. The canal must be perfectly sealed. Leakage of bleach to the apex will cause extreme pain.

Loosely pack a *Superoxol*-saturated cotton pellet into the pulp chamber and position a wisp of the same over the labial surface.

Position the light-heat source. Dressings should be changed every five minutes, preceded each time by thorough drying of the pulp chamber. Usually six changes will bring the tooth to the desired shade. If more than one session is required, insert a cotton pellet containing a paste of *Superoxol* and *Amosan* (Knox Company) into the pulp chamber and seal with a zinc-oxide cement. *Amosan*, which contains the oxidizing agent sodium perborate, accentuates the effect of the *Superoxol*. Zinc-phosphate temporary cements should be avoided because

of leakage possibilities. Teeth that are slightly stained may be treated with the Amosan and Superoxol impregnated pellet procedure alone.

Silicate or acrylic or composite filling material should be used as a permanent restoration.

Bibliography

Thomas, A.E. *Bleaching of teeth*. Practical Dental Monographs. Chicago, Year Book Publishers Inc., 1959.

Grossman, L.I. *Endodontic practices*, 7th. Ed. Philadelphia, Lea and Febiger, 1970, p. 436.

RAPID X-RAY PROCESSOR IN A PORTABLE DARKROOM

SERGEANT D. L. KERR, CD.



To meet the need for rapid X-ray processing in many phases of dentistry, a number of methods of rapid processing have been developed. For a technique to become widely accepted, it should be easily adaptable to present materials, simple and inexpensive. By combining a simple high speed developing technique with the now popular portable chairside developing assemblies, a processor which satisfies the criteria for wide acceptance, has been constructed.

High Speed Processing

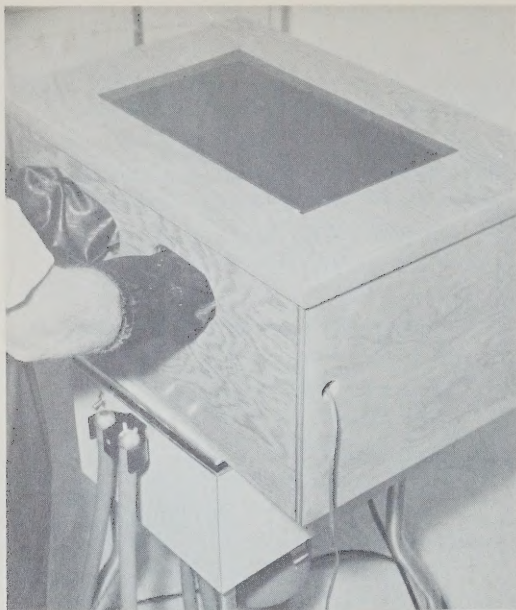
Alcox and Jameson¹ describe a method of high speed film processing in which ultra-speed film is exposed in the normal manner and then processed in standard developer and fixer which has been heated to 92°F. The best developing time is determined as 20 seconds with agitation, followed by 2 or 3 seconds in the wash with agitation and finally 30 seconds of fixing with agitation. The temperature is not critical but should be 92°F plus or minus 3°. If films are to be used for records, two minutes of further fixing is required after a wet reading.

High Speed Processor and Lightproof Box

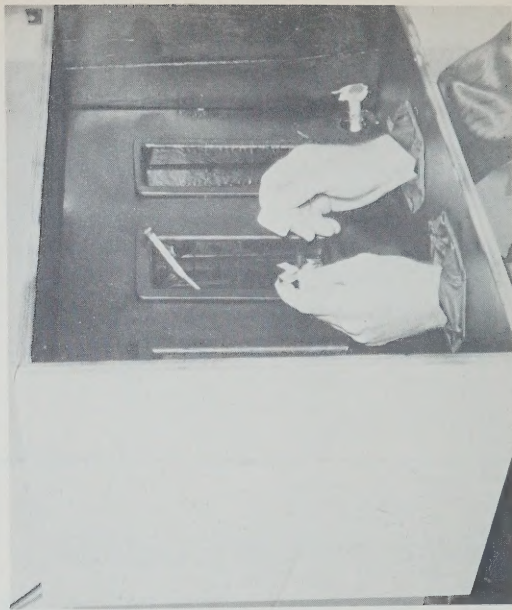
The lightproof box is constructed of 3/4" plywood with inside dimensions of 23-3/4" length by 15-1/4" width and 12" depth. The lid is flanged to provide a light baffle and has a 15-1/2" by 8-3/4" by 1/8" thick red plexiglass window. One layer of plywood is cut out to allow for countersinking the plexiglass.

Hand holes of about 5" diameter are cut to allow easy access. Lightproof sleeves are tacked on the inside. The sleeves are elasticized to ensure a snug fit at the wrists. Sleeves should be short enough to allow the operator to push his hands through the openings rather than having to pull the sleeves on.

A plastic tank 5" deep is inserted in the lightproof box. The top of the tank is cut to allow insertion of three tanks each measuring 9" by 3-1/2" by 4" deep. This spacing allows water in the large tank to circulate on all sides of the small tanks which contain developing, washing and fixing solutions.



Left. Speed processor in operation with lid in place. There is enough ambient light available to allow unrestricted vision through the red plexiglass.



Right. Inside of lightproof box with top removed to show amount of working room required for the hands above the tanks. The centre tank contains the wash with a thermometer to check temperature of solutions.

A 150-watt aquarium heater is submerged in the large tank and regulated to keep the solutions at 92°F.

Observations

In testing the light filtering ability of the red plexiglass window in the top of the box, it was found that the box must be kept out of direct sunlight. Films, however, are not affected by artificial light as the processor described is situated in the operatory directly under a bank of fluorescent lights which have had no effect on the film.

Since the assembly may be used at normal developing speeds, its' potential for use under field conditions becomes obvious. Portability and the small

quantities of chemicals required are distinct advantages.

The apparatus described is simple to construct, inexpensive and easy to operate. No special fixers or developers are required and clinical technique is not altered. This latter feature is important as operators sometimes increase exposure and under-develop the film to achieve fast processing. Such a method increases radiation hazard to patients unnecessarily.

Reference

1. Alcox, R.W. and Jameson, W.R. *Rapid dental X-ray film processor for selected procedures.* J.A.D.A. 78:3, March 1969, p. 517.

* * *

Editor's note. The preceding two articles indicate that modern technology has not yet replaced the need for local ingenuity.

PREVENTIVE DENTISTRY PROGRAM FOR 2,500 SCHOOL CHILDREN

LIEUTENANT-COLONEL J. J. N. WRIGHT, CD, DDS, MScD.



The Preventive Dentistry approach is now firmly established as an integral part of the Canadian Forces Dental Services treatment program. It has proven to be extremely effective in extending dental services to the maximum number of patients. It is well established that for the first time the dental services are making headway towards reducing the total dental problems of the members of the Canadian Armed Forces.

The CFDS is gradually assuming greater responsibility for dental care of service dependants. This is especially true in a number of isolated and semi-isolated bases. An example of this is CFB Cold Lake where the non-military dental commitment is between six and seven thousand people.

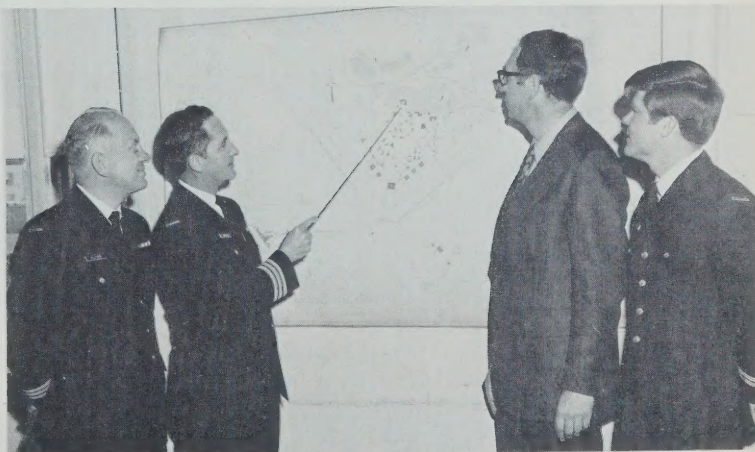
In view of the increasing commitment for dependant care by the CFDS and the present large dependant commitment at CFB Cold Lake, it was decided to extend the benefits of a preventive dentistry program to the school children who attend DND schools on the base. In three

and a half working days beginning 7 June 1971, two teams of CFDS personnel gave 90% of the 2,500 children in Grades 1 to 12 inclusive, a measure of anticariogenic protection. The task was greatly facilitated by the use of a new fluoride mouth rinse technique. The mouth rinse consisted of a flavored .5% SnF₂ solution and was well received by all age groups including the Grade 1s.

The program was based on previous programs organized by LCol DH Hillier for the first phase ROTP candidates during summer concentration at CFB Chilliwack and the National Army Cadet camp at Banff.

Although twelve CFDS personnel participated in the program, it was apparent that students with very little training could be made into effective supervisory personnel and that this project could have been completed in the same time using four CFDS personnel in key roles. However, in this instance the project was also used as a training device for CFDS personnel.

LCol JJN Wright (with pointer) Base Dental Officer, CFB Cold Lake briefing LCol DH Hillier, Base Dental Officer CFB Edmonton, program consultant, Mr. W. Novak, Schools Superintendent and Capt CH Sharpe, Base Preventive Dentistry Officer and program coordinator.



Students participated in group "self-preparations" similar to the "brush-ins" regularly held for servicemen during their month of birth. Lower grades were assembled, one class at a time (30 students) in the school libraries; the higher grades were massed in larger groups of up to 100 in the school gymnasiums for the treatment. The instructor/student ratio was 1:6 for the lower grades and 1:20 for the higher grades. Following the self-preparation the stu-

dents rinsed with the fluoride mouthwash rather than receive a topical application of SnF_2 on an individual basis.

Cooperation from and acceptance by the school staff and the students was excellent.

This pilot project proved the fluoride mouthwash technique to be a practical method of providing large numbers of school children with a measure of anti-cariogenic protection.



Top. Capt CJ Sharpe giving individual instruction in correct brushing methods to children in a Grade 1 class. Bottom. Typical set-up used for preventive dentistry presentation to lower grades. Supervising (L to R) are: Pte RP Shakotko, 2Lt KW Howie, Cpl GG Carscadden, 2Lt WJ Dawson, LCol JJN Wright, WO NJ Cable and Capt CJ Sharpe.

You want an
'instanttooth'?

This might include exchanging for a new pair: one Adidas sneaker, "68 model (the other one having been left behind on a ping-pong excursion to Sandhurst) or perhaps a new swimsuit to replace the one slowly eaten away by the chlorine monster of the indoor pool.

Invariably (and usually in this order, unfortunately) he finally arrives at the dental clinic. He's the same cadet who has been sent seventeen pink slips during the year to have his Phase I completed. His excuses have been profound studies in creative imagination. Now he arrives all out of breath (he ran to the dental clinic) ... "got to look after the bod, y'know" ... and positively demands that he be given priority dental care of the highest order. Tomorrow won't do ... he'll be busy repairing his 10-speed ... so it must be today and "if the dental officer is not too busy, why doesn't he do it right now? Have to be out by 1100 hours, though, because I must get my library books back." This makes a lot of sense as the books are four months overdue already.

Ah, well, maybe next year?

TWELVE DENTAL UNIT

By Lieutenant D.E. Fraser

Visits

LCol JVP Chatwin to Halifax area 18-20 May for three hectic days discussing and planning Preventive Dentistry programs for the Atlantic Fleet ... Capt JR Savoie to Halifax and MWO WA Bennett to Montreal in connection with the phase-out of 12 Dental Unit supply section ... WO Ernie Duve dashing from base to base repairing dental equipment. His biggest problem is keeping his little yellow lemon...oops, car...running.

The Rover Boys

Capt E Graham and Cpl G Porteous recently completed a tour of duty aboard HMCS Protecteur. On returning to land duties, the two headed east to provide dental treatment to personnel at Debert N.S. Thirty miles from Halifax their dental van threw a con-rod and knowing that personnel at Debert were anxiously awaiting their services, the dental team felt obligated and arranged to have the van towed 50 miles by a Halifax recovery vehicle into Camp Debert. Maybe a Preventive Dental Van Program on a par with our Preventive Dentistry program just may be the answer ... but where would you stick the little bit of colored tape?

Papers Presented

Papers were presented at the Atlantic Dental Convention 14-17 June at Saint John N.B. Incisional and Excisional Biopsies by Major H.M. Amos and Dowel Crown Abutment by Capt G. Gunther.

Departees

On 13 May the members of the unit in the Halifax area gathered in the party room of Moosehead Breweries to say farewell to eleven members who are leaving on posting or retirement. Included was MWO Stan MacLean who has spent 17 years in the Halifax area and has now moved

on to Cornwallis. LCol GE Windsor and Sgt Paul Dumas were here less than a year and other members completed the normal tour of duty. On the retirement side, Col SG Bag-nall and Major NH Andrews presented a gift in farewell to CWO Hilton Thorsson whose many friends will be pleased to know that he plans to settle in Langley B.C.

CORNWALLIS ENSIGN

April 16, 1971

PADRE'S CORNER

(By Padre K. Benner)

A SALUTE TO A GREAT TEAM

In this article I want to pay a tribute to Dr. Keith Morley and his charming wife Elizabeth. The Morley's have been resident in this community since the summer of 1969. In that period of time Keith and Liz have done a truly impressive amount of work. In addition to being an able, keen, enthusiastic dentist, Dr. Morley has worked steadily for the good of Cornwallis in many other fields. First, he became a member of St. George's Chapel Committee, this was a new experience for him, an experience for which he had never been given a course nor did he in any sense feel qualified but the need of the congregation and the community made him feel he must take on this piece of work. Shortly thereafter he became the Vice Chairman of the Committee and following the posting of Lt. Bruce McDonald for a 6 month period he was the acting chairman. About the same time as he became the acting chairman of the Chapel Committee, the needs of the Sunday School became one of his dominant concerns and he joined Padre Benner in a team teaching situation with the senior Sunday School class. Throughout this entire period of time, in his leisure moments at home and at work he talked of the need for further work to be done with the teenage population of Cornwallis. This need was so real to him that in the fall of 1970 he gathered a group of the teenagers around him and a Young Peoples' organization was formed and became known as the Cornwallis Youth Together (CYT). Since that time the CYT group has thrived and grown. The group have wrestled with spiritual issues and social needs and they have enhanced the image of Cornwallis Youth in the Community and the area as a whole. I am not saying Dr. Morley has touched his magic wand of success to these areas and all has flowed forth in overwhelming grandeur, Keith and Liz have laboured and struggled, agonized and sweat, teared and prayed, and they have made a big dint in the pile of our community needs and they stand well deserving of our respect, gratitude and love. The Morley's are leaving and we will be sad at our loss but we rejoice at CFB Borden's good fortune for they are getting the best there is to offer in Keith and Liz. I should perhaps point out to all and sundry who feel the younger generation have missed it that Dr. Morley is now 26 years of age and Liz is somewhere around...?? 21? or perhaps a little more. Dr. Morley is also a 'product' of the Canadian Forces system, PMQs and all, his father is a well remembered and much respected officer in the former RCAF. We are glad to have known you, Keith and Liz, and may God bless you as you go on your way.

THIRTY-FIVE FIELD DENTAL UNIT

by Sergeant C.W.J. Powell, CD

Change of Command



LCol JM Donely (left) assumed command of 35 Field Dental Unit on 5 July. LCol DH Protheroe has been posted to CFB Esquimalt as Base Dental Officer after four years as CO of this unit.

Clinics Close

The dental clinic at AFCENT in Brunssum, Holland, ceased operations on 25 June. This clinic, staffed by Major CJM Boston and WO GN Fathers was in operation for three years. Dental services for personnel there will now be provided by the U.S. Army Dental Corps.

With the closure of CFB Soest the dental detachment there closed on 30 June. This brings to an end the dental services provided since 1951 and the scattering of personnel who were part of 4 Field Dental Company.

The Social Scene

An all-ranks farewell party was held at Baden-Soellingen on 1 May. Gifts were presented to LCol and Mrs Protheroe from members of the unit and the civilian personnel of the dependants' clinics in Lahr and Baden. About ninety service and civilian members of the unit attended the party and by the bloodshot eyes the next morning there was no question that everyone enjoyed themselves.

35 Field Dental Unit officers and civilian dentists held a cocktail party on 17 April in the Black Forest Officers' Mess to honor LCol and Mrs Protheroe.

A stag party was held in the Lahr WOs and Sgts' Mess on 11 June to honor the departing commanders and commanding officers of the Lahr area who are leaving Europe.

A barbecue held by the Baden clinic honored Major Vic Lanctis and Sgt Russ Black who are leaving that clinic. A beer mug was given Major Lanctis who will no doubt put it to good use after his long bike rides. Russ Black was presented with an escargot dish with utensils and a dozen escargots (snails) to go with it. He claims as an expert that they were the best he had ever had.

The first Canadian Forces Europe medical-dental mess dinner was held in the Black Forest Officers' Mess on 27 May. There were 62 officers and civilians present with only one guest and the attendance wasn't 100%. It shows how many people are required to provide dental and medical services for 5,000 service personnel and their dependants.

The Sporting Scene

An inter-clinic broomball game was played in Baden on 23 April between the Lahr and Baden clinics. The Baden athletes showed their superiority over Lahr in coasting to an easy 14 to 2 victory.

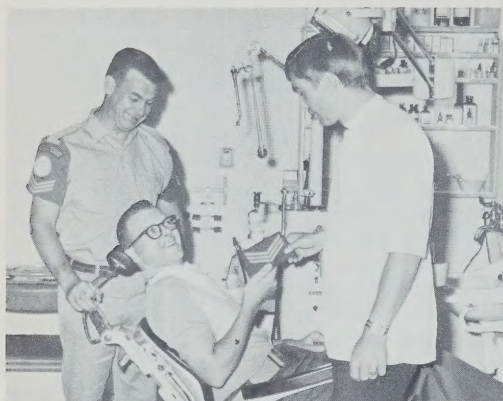
Sgt Ian MacLean was a member of the Zone 9 Badminton team which represented Canadian Forces Europe in the national championships held at CFB Esquimalt 10 to 14 May.

Major Vic Lanctis has been pedalling around Europe. Since the cycling bug hit Baden he claims to be in good shape after cycling through France.

It seems that every time Sgt Matt Hall enters a sports event he ends up somewhere in the winners' circle. This time he won second low gross in the CFB Soest spring golf tournament.

DENTAL DETACHMENT CYPRUS

By Sergeant P. Mehler.



Another Dental Drill Sergeant

In May, Cpl Paul Mehler received his promotion and congratulations from Capt John Steel with Sgt Harry Ayerst assisting. Paul replaced Cpl Danny Calnen in April.

No 1 Cavity Assault Team at Blue Beret Camp are active in sports conducive to Cyprus. Capt Steel scuba dives, Sgt Mehler snorkels and Sgt Ayerst plays for the Support Company ball team.

Sunbathing and sauna also help to relieve the tedium at this isolated posting.

FOURTEEN DENTAL UNIT

By Warrant Officer J.M. Roberts, CD.

Postings

The announced postings for this summer provide this unit with a lot of new "talent" and are responsible for the loss of many familiar faces. The new arrivals are welcomed to 14 Dental Unit and it is hoped that they'll enjoy their tours in Canada's prairie land.

On 21 May the dental staff at CFB Winnipeg gathered for a mixed function to bid farewell and good luck to Capt Merv Steadman who has retired to Calgary and to Major Frank Harreman, Sgt Brian Hannah, Sgt Glen Challenger and WO Jim Roberts, who has been the associate editor for this column and is forsaking the dental services on posting to CF Hospital in Oromocto N.B.

Retirements

LCol JG Butler, former Base Dental Officer at CFB Calgary retired after 28 years in the Canadian Forces. During that time he served with the Navy at Cornwallis, the Army at the School of

Artillery, the School of Military Engineering and Army Headquarters, and with the Air Force on the west coast, Trenton and Downsview. He had two tours in Britain and an operational tour in Korea. The Commander 1 Combat Group presented LCol Butler with his retirement certificate and a retirement party was held on 30 April. After his rehab leave, LCol Butler will reside in Calgary.

Gimli

Another "choice" posting spot on the prairies for CFDS personnel has been deleted from the dart board at CFHQ with the recent closing of the dental detachment at Gimli by Capt Tom Ringland and Cpl Bob Scheer.

Courses

Capt JFD Cormier completed a seven-week course in prosthodontics in April at the U.S. Naval Dental School, Bethesda, Maryland.

Dental Society Meeting

A meeting of the Northeastern Alberta Dental Society was hosted by the CFB Cold Lake dental detachment 24 April. Dentists from St. Paul, Lloydminster, Bonnyville, Vermilion and Vegreville were briefed by LCol JJN Wright on the CFDS and the dental detachment and on the Base role and facilities, and by Capt AP Charlebois on the Preventive Dentistry Program. A tour was made of the dental facilities at CFB Cold Lake.

The Palm Springs golf course at CFB Cold Lake was the scene of the first Dental Invitational Golf Tournament on 4 June, hosted by the Cold Lake dental detachment. The 18 hole competition was open to all dental personnel in Alberta. The purpose of the event was to renew old friendships, make new acquaintances, have fun, and, uh, play golf.

Sporting Events

A dental fishing derby took place on 19 May at Jessica Lake in Manitoba's Whiteshell district. Approximately 20 people attended. A few headaches were reported the morning after but it's doubtful if these were caused by too much exposure to Manitoba's sunshine. Trophies were won by 2Lt Cal Hansen for the biggest pike - 7 pounds and by Sgt Brian Hannah for the biggest pickerel - 3½ pounds.



Top left. WO H Wagstaff of CFB Edmonton receives the LCol RB Jackson/WO G Shand Trophy from Mr G Shand of Cold Lake for first low gross. Top right. Capt P Kozak of CFB Edmonton receives the Medley Mobile Homes Ltd. Trophy from LCol JJN Wright for first low net. Bottom left. Cpl J Van Hemert, CFB Cold Lake, receives the Col LR Pierce "Duffers Award" in recognition of the tremendous amount of energy he expended in completing the 18 hole course from WO NJ Cable, the organizer of the tournament. Bottom right. Cpl Dick Farraway is presented with a gift by LCol Wright in appreciation of his services to the CFB Cold Lake clinic. Cpl Farraway was one of several air element volunteers employed in the clinic since last fall and is now taking his release from the Forces.

DENTAL SERVICES CFHQ

Cool Confrerees

The nineteenth DGDS conference with unit commanders was held in the air-conditioned comfort of the Jelnor Bldg. 8 to 12 May. Most delegates were seen smiling on at least one occasion each day, so it can be assumed that the event was enjoyable as well as fructiferous.

The Big Move

After nine years in the antiquated, cold, creaky, dark, decrepit, dirty, dismal, drafty, grimy, hot, noisy, shak-ey, sooty, stuffy Augean stable of No. 8 Temporary Bldg (fourth floor - no elevator), the Division has moved up-town to 171 Nepean, the "home" of the Surgeon-General. Not yet fully settled in, some of the dental services people seem slightly bewildered in the posh accommodation, breathing the cool, clean air. They'll get used to it...but the parking ain't no hell.

Trips

In April: BGen GC Evans to Edmonton and Calgary to visit dental facilities ... In May: LCol JVP Chatwin to Halifax on preventive dentistry business

... Col GR Covey to Toronto for the Ontario Dental Association convention.

Hail and Farewell

Major HS Wood has joined the division on completion of his course in Public Health at the University of Toronto. He replaces LCol Chatwin who is now CO of 1 Dental Unit ... Sgt Cliff Millard has taken off to the salubrious climate of CFB Comox ... CWO Pen Griffith-Jones has gone to his umpteenth posting within CFHQ but will continue to "layout" the Quarterly.

Our Man at Bisley

LCol JC Brick, at Bisley during July, scored a possible in the Duke of Cambridge Cup Challenge, a 900-yard event. His three shots in the inner V of the bull's eye put him in eighth place among 800 shooters. Earlier, he won the Clock Tower event at 800 yards with ten bull's eyes, nine of the ten shots in the V.

The Posters

Capt RW Bowness lectured on career progression of men in the medical trades at CFMS Borden in June and again in July.

ONE DENTAL EQUIPMENT DEPOT

By Sergeant M.D. Longford.

Depot Doings

In May the Depot staff and their wives enjoyed themselves at a Dental-Medical dinner dance held in the new facilities at Petawawa's Centennial Centre.

Mid-June saw the smiles starting to creep across the fishermen's faces. They had reported light catches until the annual Dental-Medical Fishing Derby on 18 June. Though no prize fish came to the Depot Boys they had a good time on the Ottawa and returned with a goodly number of acceptable size fish, red faces and some slightly wet clothing.

We welcome to the unit WO J McPhee from Trenton and Sgt P Dumas from Halifax ... The gang is splitting up this

summer with people heading in all directions. Sgt MD Longford to the Indian country of the east - Oromocto ... WO A Green to his fair plains with cattle and oil wells in Edmonton ... Lt KD Townshend and Cpl H Lubitz to the cultural exchange program in La Belle Province - St Hubert.

In saying au revoir to Sgt T McRoberts on his retirement, we are losing one of the originals at this location. Ted came to Petawawa when the depot opened in 1961 and is now going to take up civilian life at Campbells Bay, Vancouver Island. He says he's going to retire ...we think he will be working harder than ever!

ONE DENTAL UNIT

By Master Warrant Officer E.E. McFadden, CD.

New Commanding Officer

At a farewell party for departing officers and men of the unit, ICol JVP Chatwin was warmly welcomed as the new commanding officer. The energy and drive he displayed in developing the Preventive Dentistry Program in DGDS will, no doubt, continue in the unit. One of his first steps as CO was to move the unit HQ from the CFHQ clinic in downtown Ottawa to the National Defence Medical Centre in Alta Vista. This will streamline both the function of the HQ and the treatment facility of the CFHQ clinic.

Trudy's Trophy



Mrs Trudy McNamee of the CFHQ clinic won the Ontario Dental Assistants and Nurses Association (ODNAA) trophy for the best table clinic at the Ontario Dental Association convention in Toronto for her presentation on *The Role of the Dental Assistant during Oral Surgery under Local Anaesthesia*. She recently completed a Dale Carnegie course and is also a Certified Dental Assistant in Ontario.

Skunky Dog Story

Sgt Flo Putman and her husband Charlie arrived in June and camped at a local

campsite while looking for a place to live. Their large dog got tangled up with a skunk - not once, but twice! ... a fine welcome to Ottawa!

The Jet Set

Three of our people travelled to Europe this year. Sgt Helmut Marckwort made it via civilian air to England and Germany to visit his relatives. Surprisingly, Helmut did no skiing - maybe last winter's snow was enough ... Pte Dawn Duncan, after great difficulty in getting a seat on a service flight, proceeded to Majorica. She won't say much about her trip although she has requested a posting to Europe ... Capt Floyd Jackson went as far as Spain. It's not known if the Spanish dancing girls and the bullfights were the attraction but he's also asked for a posting overseas.

Where Are They Now?



Dental Assistant Course, January 1952, at the RCDC School in Ottawa. Front row, L to R: Ptes JAR Shields, EH Abernethy, MH Redman, EE McFadden. Back row: CE McDow, White, JM Tapp, Gethings, PT Murley, Borsholt, MD Crockett (deceased) and White.

Annual Golf Tournament ~ Trenton ~ 16~17 September

DENTAL SERVICES SCHOOL

By Warrant Officer P.D. Peterson.

Armed Forces Day

Base Borden threw the gates wide open on 12 June for the annual Armed Forces Day. This year CFDSS under the leadership of Capt WA MacInnis added to the many displays by presenting a dental theme centered on the Preventive Dentistry program. The civilian response was substantial as attested by the large crowds which gathered.

Visits

Various aspects relating to dental treatment, training and administration continually forces the staff of CFDSS to travel ... Col LG Craigie found it necessary to venture to Ottawa for the DGDS conference in May and then to CFB Chilliwack with Major HW Brogan in June ... Major LA Reynolds and Capt TA Bradley attended the Ontario Dental Assn. convention in Toronto 16-19 May ... WO WJ Parker and MCpl EJ Schultz went to CFB Petawawa on a dental stores liaison trip 2-3 June.

Bon Voyage

Each quarter we invariably include farewells to more of our staff leaving the School. This quarter is no different: LCol AG Andrews to Halifax, Sgt RW Danyluck to Kingston, Sgt RK James to SHAPE HQ in Belgium, Capt GJ Pinson-

neault to University of Toronto, Cpl TH Taylor to 35 Field Dental Unit ... and posted to civvy street: Cpl JA Clint, starting a new career in May in the Toronto area ... A special goodbye to a man who has served thirty years with the Armed Forces of two countries - Sgt GH (Gerry) Taylor. Gerry started his career in England during the Second World War, then emigrated to Canada and joined the RCAF, eventually transferring to the RCDC. His loss to retirement will be felt by all his friends, for the one thing recruiting cannot buy is the knowledge and experience retiring personnel take with them.

To balance the "outgoing", a special welcome is extended to those lucky people posted to our hallowed halls of learning: Sgt JA Busse, Sgt DL Delmage, WO DJ Davies, Pte(W) J Hill, Capt KR Morley, Capt PW Williams and Cpl JL Violette.

Spring Swing

The School again welcomed spring with the annual spring ball on 29 May. This event has become one of the biggest in the CFDSS social calendar and affords the opportunity for wives and/or sweethearts to be wined and dined and meet other members of the School.

ELEVEN DENTAL UNIT

By Sergeant R.S. Walker, CD.

Modern ? Equipment

The dental detachment at CFB Chilliwack was recently equipped with air conditioning units, proudly installed in the walls for all to see ... but would you believe it? ... they don't function for lack of 35¢ plugs ... and this at the school of engineering.

B.C. Centennial Canoe Pageant

Capt Justin McNeill has been chosen captain of a canoe team which the PPCLI are entering on behalf of Prince Edward Island in the BC Centennial canoe race from Fort St James to Victoria 25 July-13 August. A story with pictures has been promised for the October Quarterly

Farewells

A get-together was held in the Legion 25 May for personnel in the Victoria area posted out this summer. Sgt Art Bramble, retired in July to live in Victoria, was given a presentation. On 26 May a luncheon was held in Work Point Barracks to say farewell to officers posted out and to Major Don Poy, retiring to private practice in Victoria.

Golfing

A golf tournament drove off at Cedar Hill course in Victoria on 4 June and was arranged in four-man teams playing best ball. LCol Norm Butcher, Capt Frank Margetts, Sgt Dick Walker and Cpl Harold McGillivray won with a gross score of 67 (2 over par). CWO John Greco put his tee shot on the short 12th hole five feet from the pin to win a prize for "closest to the pin".

Fish Fable

During a recent trip to Kamloops, Capt Paul Arnold found the fishing extremely good. He ran around frantically one night looking for a camera to photograph his catch. Finally he found one and took his picture. Alas, Chilliwick reports that the picture did not turn out good enough for publication. (????)

Where They Are Now

The following CFDS retired personnel now reside west of the Great Divide ... B.C. to you easterners. The list may be helpful to look up old friends while travelling in the west West.

Abbotsford
Jack Walls

Courtney
Bill Jackson

Delta
Bruce Gilbert

Duncan
John Shiner
E.I. Gerard

Langley
Hilton Thorsson

Kelowna
Gary Hill
Larry Gray

Nanaimo
Bob Dawe

Penticton
John Lincoln
Vince Blackmore

Prince George
Bill Ebert

Port Alberni
Brian Andrews

Richmond
Phil Quinn
Herb Doyle
Don Middleton

Vancouver
B. Wilcock
Norm Kearns
Art Nicholson
Cliff Mason
Ian Hunter
Chuck Johnston
George Ryder

Vedder Crossing
Frank Nesbitt
Max Dean

Victoria
Perc Gourlay
Gerry Shragge
Bunny Berezon
Pat McCoy
Gordie McKay
Don Poy
John Strasdin
Jerome Bergerman

Walley
Ernie Carpenter

Williams Lake
Paul Fafard

THIRTEEN DENTAL UNIT

By Sergeant E.S. Beattie, CD.

Taps

The Base Clinton dental clinic was closed out and equipment removed on 14 June by Lt LR Hatcher, assisted by MWO RG Hopkins and Pte RD Wade.

The Wheat ...

Col WR Thompson attended the IVth. World Conference on Oral Surgery in Amsterdam in May. While across the "Pond" he took a quick tour of "Blighty" on leave ... WO JE Clarke was successful

in his Registered Dental Technician exam for Ontario ... WO EJ Lansey spoke to the nurses and medical assistants at CFH Kingston on *Present Day Concepts of Preventive Dentistry* ... WO J Dion gave four hours of instruction on radiographic technique to civilian dental assistants in an evening lecture program ... Miss Clara Rathbone, a dental nurse at the Base London clinic, is entering the Dental Services and will go to Cornwallis in October ...



Col WR Thompson presented an engraved silver cigarette box to Sgt EL Schell who is retiring on completion of twenty years to a farm near Granville Ferry NS.

and the Chaff ...

Most of the personnel at Base Trenton clinic have attended a safe driving course ... Mrs J Rutherford, dental nurse at Base Toronto clinic visited Morocco and the Canary Islands during her holidays ... ten members of the Base Petawawa clinic were treated to a helicopter familiarization flight ... Capt RG Kerr has opened a practice in Cobourg and Capt DC Morgan has opened a practice in Stouffville, Ontario ... Capt DA Humphrey is now practicing dentistry as a "sideline" - apparently his "thing" is music. We hope to hear more of him in the future ... Cpl L Petkow-Awramow was an enumerator in the recent census for the PMQ area at Base Petawawa ... Capt GC Post, CFB North Bay, received his certificate on completion of a 7-week course in periodontics at the U.S. Naval Dental School in Bethesda.

Moosonee Mush Mush

Capt BW Yates is much involved at CFS Moosonee. He is PMC of the Officers' Mess and a member of the Moosonee Volunteer Fire Department. Between appointments, he was busy fighting forest fires in May and June. During leave in March, Capt Yates and three other officers made a 110-mile snowmobile trip to Fort Albany, an Indian settlement on James Bay. Weather conditions consisted of zero to twenty below temperatures, snow and strong winds. The trip there and back took five days, with one machine breakdown and only minor facial frostbite and aching backs.



Capt Yates with wife and family beside an ice sculpture (did you think it was something else?) at CFS Moosonee.

Triumphant Trio



Mrs DE Whaley, Mrs FL Mitts and Mrs J Macklin, Base Trenton clinic dental assistants, display their caps and pins, awarded on completion of an evening course which certified them as members of the Ontario Dental Nurses and Assistants Association.

Major H Griesbach's brother, a member of the US Special Forces Green Berets, prematurely ended his second tour of fighting in Viet Nam's central highlands as a military adviser to the Montagnards by becoming a casualty. He was evacuated to a US Army hospital in Japan for surgery.

The Sporting Life

LCol WH Harrington became a member of the Base Petawawa 100-mile jogging club ... Major IAC MacDonald qualified as one of ten members for the Base Kingston golf team ... Capt GE Roque and Cpl GE Sykes received honorable mentions on Radio North Bay for chopping up the greens of Pinewood golf course ... at the Station Moosonee sports banquet, Capt BL Yates and his wife Pauline received five bowling trophies and Cpl WK Jeneraux received an individual bowling trophy ... MWO RF Matheson is coaching the Middleton Park Bantam All Stars and Sgt NL Highfield is acting as manager. MWO Matheson has also been elected to a second term as treasurer of the Trenton Figure Skating Association.

Gone To The Dogs

Cpl Inge Linton and her husband Bill are among the owners of some of the members of the second oldest breed of dogs in the world. They own three Norwegian Elkhounds.

Skeletons of this Spitz-type breed dating back to the Stone Age of 4,000 to 5,000 B.C. have been excavated in Norway. Used by the Vikings and retained in its original state through the centuries, the *Elgund* (moose dog) is not a true hound but a very versatile hunting dog that pulled sleds, herded sheep and acted as a guard dog. The elkhound was not exported until the 1870s when it went to England. It is almost square in appearance with erect, pointed ears and a short back with a tightly curled tail over it. Its' wooly greyish undercoat is covered with smooth black-tipped hairs. The elkhound is compared to the wolverine in regards to strength and ferocity but is exceptionally gentle with humans, especially children. Due to lack of work, the elkhound in North America has become coarser than the Norwegian type. Some breeders (among them,

the Lintons), are trying to retain the true type.

They bought their first purebred in 1969. After studying the breed and growing more interested in it, they decided to buy a female for breeding purposes and shows. On a trip to Detroit, they spoke to several breeders of elkhounds and bought their third purebred. He goes by the name of "Nordland Titan" and was sired by American and Canadian Champion Crafdal Tryg N Thor Thork. In Titan's lineage there are fourteen championships in five generations, primarily on his father's side.



Cpl Linton with Titan

At a Sarnia Ontario dog show, Titan took best of breed for three points towards his championship. In Oshawa and Kingston shows he gained two additional points. Cpl Linton is entering her prize dog in another show at Don Mills, hoping he will repeat his Sarnia performance. Inge is expected to publish a birth announcement soon - for the first litter of Krystina sired by Titan.

ANNUAL GOLF TOURNAMENT

16~17 SEPTEMBER

at CFB Trenton

FIFTEEN DENTAL UNIT

By Sergeant J.R. Joly, CD.

Items of Interest

As of 1 June, 15 Dental Unit supply section assumed responsibility for supply and accounting for dental materiel for all clinics in 12 Dental Unit.

Major JM Trepanier visited Germany, Austria, Italy and France during his holidays in April.

A farewell party took place at Longue Pointe for Capt JJ Roy and Sgt JR Ritchie, posted to CFB St Jean and CFB London respectively.

The Sports Scene

Capt JJ Roy was a member of the CFB Montreal badminton team participating in the zone playoffs at Valcartier 6-7 April.

Capt YJA Gagnon requalified as an assistant ski instructor on a course in April run by the Canadian Ski Instructors' Alliance at Mount Orford, Quebec.

Capt Gagnon and Cpl Hurley played 36 holes under a "cool" 92 degrees in the Zone VI golf playdowns on 17 June but unfortunately failed to make the team.

Major GI Bisailon and Sgt JR Joly participated in a CFB Montreal golf tournament at Chambly on 9 June. Sgt Joly had better success on a fishing trip to Gaspé.

The fishing must have been good at Moisie. A temporary duty team of Capt JC Ayotte and Cpl JJ Arsenault have requested a two-week extension.

Professional Training

U.S. Naval Dental School, Bethesda, Maryland

Periodontia

Capt WEJ Nind

3 - 7 May

Capt GC Post

4 May - 18 June

U.S. Army Letterman General Hospital, The Presidio, San Francisco

Oral Surgery, 6 July 1971 - July 1974

Major FH Harreman

Madigan General Hospital, Tacoma, Washington

Oral Surgery, 6 July 1971 - September 1974

Major JDH McCallum

University of Toronto

Orthodontics, 31 May 1971 - 31 May 1973

Capt GHJ Pinsonneault

Canadian Forces Training

Canadian Forces Dental Services School, CFB Borden

Fixed Partial Dentures and Preventive Dentistry, 4 - 26 May

Major JLY Cyrenne, Major W Budzinski, Capt RI Stammers, Capt JJ Campbell,
Capt DB Smith, Capt CN Murray

Dental Assistant PL3, 16 February - 23 April

Cpl HJ Habberjam, Cpl I Winsor, Cpl HG Bodfield, Pte PJ Searle

Canadian Forces Staff College, CFB Toronto

Junior Staff Officers, 13 April - 18 June

Capt FJ Marentette

Canadian Forces School of Management, CFB Montreal

Advanced Management, 21 June - 9 July

Major BA Gaudet

Middle Management, 23 February - 26 March

Lt WA Jackson

Canadian Forces Language School, CFB St Jean

Formal French Language

Lt RD Townshend

17 January - 17 April

Capt EL MacInnis

26 April - 30 July

Canadian Forces School of Instructional Technique, CFB Borden

Instructional Technique 1

Sgt K Delmage

19 April - 5 May

Capt WA MacInnis

10 - 27 May

Canadian Forces School of Communications-Electronic Engineering, CFB Kingston

Metal Inert Gas Welding, 13 July - 4 August

Cpl LJ Kallman

Training with Industry

Ritter Dental Equipment Co., Rochester, N.Y.

Installation, Maintenance and Repair of Ritter Co. Equipment

MWO EMB Everett

19 - 23 April

Cpl CC Shave

7 - 11 June

Promotions

Major:	JR Bellerose, JE Joubert, JL McNeill, RG Peebles
Captain:	DF Clark, RA Hunt, DM Spencer, PD Higgins, EF Sasse, JB Delong, GR Bowes, TA Rawlyck, RS Haines, DF Graham, PW Williams
Master Warrant Officer:	EV Tanner
Warrant Officer:	GN Fathers, GM Wadden, CS Brown
Sergeant:	JG Labrosse, PJ Mehler, TV Girdlestone, JG Hughes
Master Corporal:	EJ Schultz
Corporal:	WG Cudmore, MM Kent

Honors and Awards

Two former dental servicemen enrolled in DOTP at the University of Manitoba did exceptionally well this past year:

Officer Cadet Roger Johnson received the following awards: Shaw Dental Laboratory of Winnipeg Scholarship for the highest standing in first year; Winnipeg Dental Society Scholarship for highest standing in prosthodontology, dental materials and dental anatomy in first year; Isbister Scholarship for highest overall average for year's work and Honors in First Year.

Second Lieutenant Cal Hansen received the Winnipeg Dental Supply Scholarship for the highest standing in clinical dentistry in third year.

Bienvenue

A cordial welcome and best wishes for a happy career in the Dental Services is extended to: Captains DF Clark, RA Hunt, DM Spencer, PD Higgins, EF Sasse, JB Delong, GR Bowes, TA Rawlyck, RS Haines, DF Graham, PW Williams, Pte NJ Chessum, Pte RD Wade, Pte(W) VR Pafford, Cpl FN Boosamra, Cpl VE Gorman, Pte C Rathbone, Pte(W) LC Vardy, Pte(W) GM Heinrichs, Mrs Grace McNair, Cpl JR Cornett, Cpl RF Abfalter, Mrs M Dykes, Cpl CF Baldwin, Cpl JP Chasse, Cpl EA Morin, Cpl JN Paradis.

Au Revoir

Farewell and good luck to: LCol JG Butler, Capt JAR Shearer, Capt RJ Kerr, Sgt EL Schell, Capt DA Humphreys, Capt DC Morgan, Major WD MacKenzie, Cpl JA Clint, Capt RF Cooper, CWO H Thorrrson, Capt JW Bergerman, Capt OM Steadman, Capt JL Berthiaume, Cpl LJ Timleck, Capt JL Bourcier, Major DL Poy, Sgt A Bramble, Pte(W) NL Rivers, Sgt DT McRoberts, Pte(W) LC Kidd, Mrs DH Hardy, and any others we've missed at press time.

Vital Statistics

Marriages

Congratulations and many years of happiness to: Miss Eileen Mary Foran and Cpl HBM George; Miss Muriel Irene Donald and Capt DK MacKenzie; Miss Terry Watson and Capt AP Charlebois; Miss Sally Jane Hazeldine and Capt HA Chestnut.

Births

Welcome to the world, children, and may the wind be always on your backs.

Sons

Sgt and Mrs NB Looker
Capt and Mrs DW Pettigrew
Cpl and Mrs JE Dale
Capt and Mrs KR Morley
Major and Mrs L Dombowsky



Daughters

Capt and Mrs WEJ Nind
Sgt and Mrs ML Allen
Capt and Mrs WO Donald
Capt and Mrs JG Dessureault
Cpl and Mrs WK Jenereaux
Major and Mrs HM Amos
Pte and Mrs AT Baird
Capt and Mrs JR Salois
Major and Mrs JA Boucher
Cpl and Mrs CH Forsythe
Capt and Mrs RJ Burns
Sgt and Mrs JH Hardy

Bereavements

Deepest sympathy is extended to: MWO SE Robertson on the loss of his father and two brothers; Major JFA Marcil on the loss of his father; MWO EK Abernethy on the loss of his brother; Major LA Reynolds on the loss of his sister.

In Memoriam

Colonel Dwight Samuel Coons, OBE, MM, ED, DDS, MICD, a former Director General of Dental Services, died in Rome, Italy, on 3 June 1971. All ranks of the Canadian Forces Dental Services extend sincere condolences to his family.



Colonel Coons was born at Winchester Springs, Ontario, on 23 September 1896. He served in the 173rd. and the 54th. Battalions of the Canadian Expeditionary Force from 1916 to 1919, attaining the rank of Lieutenant. He was awarded the Military Medal in 1918. He received his dental degree from the University of Toronto in 1923. He joined the Argyle and Sutherland Highlanders in 1926 and transferred to the Canadian Dental Corps in the rank of Captain on 20 September 1939.

Colonel Coons was promoted Major in November 1939 and was appointed Senior Officer, Dental Services (Air) at that time. He was promoted Lieutenant-Colonel in 1941 and held the appointments of Assistant Director of Dental Services (Air) and Deputy Director of Dental Services (Air) successively and served at RCAF Headquarters in the United Kingdom. He was promoted Colonel in 1944 and on return to Canada in 1945 was appointed Deputy Director General of Dental Services. He was Director General of Dental Services from February 1946 to September 1946.

Interment took place at Greenwood Cemetery, Burlington, Ontario.



Sgt Red Kerr's boy Clint, age 20, recently went fishing alone in Ped-dar Bay B.C. and caught his four-fish limit. Total Chinook salmon catch was 110½ lbs - 33½, 30, 24 and 23 lbs. This is an exceptional feat for a young lad. Can any adult readers claim to have done better than this?

The
**CANADIAN
FORCES
DENTAL
SERVICES**
Quarterly

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The CFDS Quarterly



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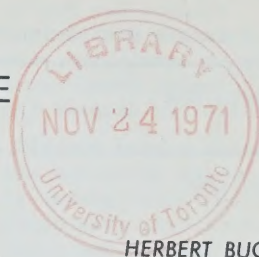
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*B.C. Centennial Canoe
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MORE ABOUT MERCURY HYGIENE



HERBERT BUCHWALD, PH.D.*

The potential hazard to health from mercury used in the dental office has recently received considerable publicity. The CFDS Quarterly was first with an editorial and a most useful article by Corporal R.B. Scheer,¹ to be followed in the next issue by a helpful letter from Dr. K.M. Baird.² At the same time, the American Dental Association sponsored a timely review³ which soon received supporting editorial comment from the Canadian Dental Association.⁴

Unfortunately the major emphasis in the reviews and other published work has been directed at contamination of the working atmosphere by mercury vapour. This may lead to a false sense of security in those areas where tests have shown the concentrations of airborne mercury vapour to be well within the Threshold Limit Value (T.L.V.) of 0.05 mg/m³ (milligrams per cubic metre of air). (The T.L.V. is defined as the maximum time-weighted average concentration of an atmospheric contaminant to which the majority of normal individuals may be exposed for prolonged periods during the course of their work (usually eight hours per day, five days per week without adverse effect).)

There has been little attempt to point out that elemental mercury (i.e., mercury metal) can normally be absorbed into the body by three routes:

- by inhalation of the vapour and of respirable dust particles containing mercury;
- by absorption through the skin;
- from the gastro-intestinal tract, following ingestion.

Because inhalation of the vapour is the most significant and potentially dangerous of these routes, consideration of the other two has been neglected. In the event that absorption by all three routes is possible, then each will contribute to the total body burden of mercury. The airborne mercury can be related to the T.L.V. only if the other two routes of absorption are negligible.

Consideration of the operations involved in the removal of old mercury amalgam restorations and the insertion of new ones show that all three routes of absorption are possible (*Table 1*). Since concentrations of mercury vapour in most offices have generally been well below the T.L.V.,^{2,3} then the contributions from ingestion and skin absorption could become significant if adequate preventive measures are not taken.

In 1968 a thorough study was made of the working environments in 23 Alberta dental offices,⁵ bringing to light some interesting information not previously reported. Some of the highlights can be summarized as follows.

- Dental assistants handle the mercury more than the dentists and are consequently more at risk.
- Three out of 21 dentists and six out of 24 assistants excreted mercury in their urine at levels significantly higher than persons not exposed to mercury at their work.
- Concentrations of mercury vapour in all working areas were generally well below the T.L.V. of

*Dr. Buchwald is a scientific adviser in the Hazardous Products Section, Food Advisory Bureau, Food and Drug Directorate, Department of National Health and Welfare.

Table 1
Possible Routes for Mercury Absorption in Dental Offices

<i>Operation</i>	<i>Route of Absorption</i> (for dentists and dental assistants)
Storage of Mercury	<u>Inhalation.</u> Mercury vapour from unsealed containers, especially if temperature is elevated above 90°F.
Transfer and manipulation of mercury, including trituration, mulling and squeezing	<u>Inhalation.</u> Mercury vapour from unsealed containers, spills and residues. <u>Skin absorption.</u> Hands contaminated by handling the metal. <u>Ingestion.</u> Mercury from hands transferred directly to mouth or onto food and with cigarettes.
Cutting out of old amalgam fillings	<u>Inhalation.</u> (a) Mercury vapour liberated by heat of drilling from tiny amalgam particles; (b) amalgam dust inhaled into lungs. <u>Ingestion.</u> Particles of amalgam dust impacted in mouth and upper respiratory tract, later swallowed.
Filling with new amalgam, condensation and polishing	<u>Inhalation, skin absorption and ingestion.</u> Very low order of risk.
Clean-up of equipment, working surfaces, floors, etc.	<u>Inhalation.</u> From unsealed containers, manipulation of spills, droplets and dust. <u>Skin absorption.</u> From handling the metal and contaminated equipment and surfaces. <u>Ingestion.</u> By transfer from contaminated hands.

Note. No attempt has been made to establish the relative magnitude of the risk from the various operations and routes of absorption. These are dependent on combinations of circumstances which prevail in individual offices.

0.05 mg/m³. (Tests were usually made at breathing height of persons working in these areas.) In the general working areas the mercury vapour concentrations did not exceed 0.055 mg/m³ in 22 out of the 23 offices surveyed. In the remaining office the highest mercury concentration of 0.17 mg/m³ was found in the operatory, where considerable amounts of mercury had been carelessly spilled on the floor and on working surfaces; this office was also served by

a recirculatory air conditioner which did not introduce fresh air.

- Surprisingly high concentrations of mercury vapour (up to 2 mg/m³) were observed for short periods of time (less than three minutes) during the removal of old amalgam restorations. The concentrations observed varied widely and appeared to be dependent on the dentist's technique. The daily dose of mercury vapour from the removal of ten

old fillings, yielding an average vapour concentration of 0.4 mg/m^3 for a total time of 20 minutes, exceeds the dose which could be absorbed from a general office concentration of 0.02 mg/m^3 after an exposure time of six hours. The mercury vapour from this source is localized in the breathing zone of the dentist who works only a short distance from the patient's mouth.

A significant amount of mercury (not as the vapour) was associated with dust arising from the removal of old restorations. The major proportion of dust in the dentist's breathing zone was of respirable size; that is, it could be inhaled and retained in the lungs. The potential hazard of mercury from such particles is unknown; although large masses of amalgam are insoluble in saliva and body fluids, it is reasonable to assume that solubility would be increased when the amalgam is in a finely divided state. It was found that the concentration of mercury-bearing dust was low when water spray coolant was used during drilling and highest when an air cooled drill was used in conjunction with a rubber dam.

Dental assistants generally prepared the amalgam and accumulated significant amounts of residual mercury on their hands. Swab samples from assistants's hands in some cases contained more than 1 mg of mercury. Microscopic examination of the hands showed the mercury to be in the form of tiny droplets capable of lodging in pores and fissures. Finely divided mercury in this form may eventually dissolve and be absorbed through the skin; alternatively it may be transferred to food, cigarettes or directly into the mouth. Such mercury from the mouth or in food will dissolve in gastric juices and be absorbed. Mercury on cigarettes, collected from contaminated hands or working

surfaces will inevitably be vaporized and inhaled. It was observed that dental assistants were not always careful to wash their hands after using mercury and between patients.

(In one case a dental assistant was excreting mercury in urine at levels which could be associated with chronic intoxication. There was not any marked contamination in the office, the concentration of mercury vapour in the working atmosphere never exceeded 0.03 mg/m^3 and urine analysis of the dentist showed that he was not affected. It was observed that the assistant did not wash her hands after handling mercury and also that she was a heavy smoker.)

- Small droplets of mercury could be found on floors and in cracks on working surfaces in 21 of the 23 offices examined. Clean-up procedures were primitive or non-existent in more than half of the offices.
- Of 23 dentists interviewed only 11 were aware that mercury could be harmful but only two took any precautions in using mercury. Out of 25 assistants only seven were aware that mercury could be harmful.

The study during which the above observations were made was carried out in 1968. It would be fair to assume, because of recent publicity, that most individuals are now aware that mercury can be harmful, and that considerably more care is being taken in dental offices. The use of pre-weighed encapsulated materials can almost eliminate the spillage and handling of mercury metal when compared to the older procedures for preparing amalgam.

For the guidance of all persons using mercury, the list of precautionary measures following this article was prepared after taking into account the experience gained during the study mentioned above. The most important of these precautions can be summarized as follows.

- Be aware of the hazard.
- Store mercury and residues in sealed containers.

- Clean up spills immediately.
- Use mercury in a well-ventilated room (six to ten air changes per hour).
- Pay careful attention to personal hygiene.
- Do not smoke or eat with contaminated hands or place cigarettes on contaminated surfaces.
- Have an annual blood and/or urine analysis done.

Analysis of the working atmosphere for mercury vapour is of limited value because it is useful only in cases of gross contamination and is restricted to conditions on the day of the tests. Close visual inspection of floors and working surfaces will show if there are spills to be cleaned up.

If no mercury can be seen by visual inspection then it is most unlikely that any significant concentration of vapour will exist in the atmosphere.

Finally, a few words about environmental pollution. The use of mercury for dental purposes is about 5% of the total consumption of mercury in Canada. If the recommended precautions are observed, only a small proportion of the mercury used would finally be distributed into the environment and the contribution to general pollution should be negligible.

Conclusion

Although the use of mercury does not present a serious risk in the majority of dental offices, lack of care and a combination of circumstances can result in adverse effects on health. A few cases of severe intoxication in dental personnel have been recorded. The potential hazard can be almost entirely eliminated by attention to a few simple precautionary measures.

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RECOMMENDED PRECAUTIONS FOR SAFE USE OF MERCURY BY DENTAL WORKERS

Instruction

1. All persons working with or handling mercury should be instructed in the potential harm to health and in the methods of preventing absorption into the system.

Storage

2. All mercury, including waste and amalgam residues, should be stored in well sealed containers. Waste mercury should not be flushed down the sink, placed in the garbage or kept in beakers, trays or other open containers. (Suitable containers include plastic, glass and glazed ceramic. Metal containers should be avoided.)
3. Store mercury in a cool place.
4. Never heat (even above 100°F) mercury except under exhaust ventilation (e.g., under a fume hood).

Disposal

5. Articles contaminated with mercury (e.g., paper tissue, chamois leather, squeeze cloths, etc.) should be kept in sealed containers until disposal is possible (poly-

ethylene bags are suitable); these may then be disposed in the normal garbage collection.

6. All droplets or larger amounts of waste mercury, including pieces of new or old amalgam should be accumulated in a sealed container until sufficient is available for return to the supplier or for sale to scrap metal dealers for recovery of mercury and silver. A layer of water over the mercury will reduce the possibility of vaporization.

Working Environment

7. Mercury should not be used in small unventilated rooms. In rooms where mercury is used, floors should be of smooth plastic, linoleum or terrazzo with a minimum of cracks, corners or fissures. Absorbent floors such as carpet or worn wood should be avoided since it is impossible to decontaminate these properly after accidental spills.

8. Wooden benches and counter tops with cracks and corners should be sealed to prevent entry and accumulation of mercury. (One easy way of doing this is to tape heavy gauge polyethylene sheet over the working surfaces.)

9. Take care not to place hot objects or lighted cigarettes on surfaces where mercury is being used.

Prevention of Spills

10. Care should be exercised to prevent spillage of mercury; the use of funnels and proper dispensers can be recommended. Apparatus used for dispensing mercury should be properly designed and maintained and in good condition.

11. All dispensing of mercury, mulling or other preparation of amalgam should be done over a suitable tray in which any spills or drops will be caught. Triturators or other equipment used in conjunction with mercury can be placed on a shallow tray large enough to catch any stray droplets.

12. The use of encapsulated materials can be recommended.

Clean-up Spills

13. Spilled mercury should be cleaned up immediately. Never use bare hands for wiping over contaminated surfaces. A paper tissue can be used effectively to sweep together many small droplets for agglomeration into larger drops.

14. Droplets in difficult places may be picked up with narrow bore tubing connected (via a suitable trap) to a vacuum pump. A vacuum cleaner should not be used for cleaning up spills.

15. Droplets in inaccessible places should be treated with a mercury absorbent paste composed of equal parts of calcium oxide (hydrated), flours of sulphur and water.

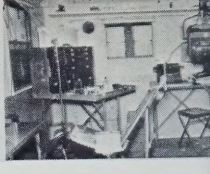
Personal Hygiene

16. Mercury can be absorbed through the skin. Care should be taken not to handle metallic mercury or contaminated equipment. If it is necessary to handle mercury, the hands should be washed thoroughly as soon as possible afterwards.

17. Mercury can be transferred from contaminated surfaces or hands to cigarettes and then inhaled directly after being volatilized by the heat. The heat from a burning cigarette can also volatilize significant amounts of mercury if the cigarette is placed on a contaminated surface. Smoking should be prohibited in areas where mercury is being used and persons who have worked with mercury should not smoke until the hands have been washed.

Medical Examination

18. Periodic blood and/or urine analyses for mercury should establish if persons are absorbing potentially harmful amounts. (Every 3, 6 or 12 months according to the degree of exposure.) Advice regarding such analyses can be obtained from the Occupational Health Branch of the Provincial Department of Health.



The Foot Engine - A Centenary

IVO VINSKI, I.D.S.



Ever since Pierre Fauchard, many practising dentists have felt the need for a rotary appliance to help them in their work. They wanted to relieve their patients' sufferings by opening up aching teeth, they wanted to remove decayed dentine from carious teeth and they wanted an appliance to shape cavities to receive a filling. Some used their inventiveness and skill to produce a variety of so-called dental drills, a number of which can nowadays be seen and admired in many a dental museum. In spite of their ingenuity, almost all of the early instruments had to be used with two hands; all of them were inefficient. The first really efficient rotary appliance was Morrison's dental foot engine.

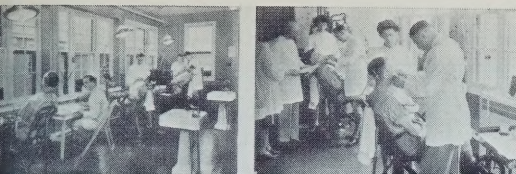
Dr. James Beall Morrison (1829-1917), who was largely self-educated, was a typical ambitious American pioneer dentist of his day. As a young boy he mastered both crafts of brickmaking and bricklaying. At the age of 16 he was a master painter; by the age of 18 he had learned to be an expert watchmaker. In the year 1848 he became apprenticed to an Ohio dentist and then started his dental studies. In 1857, Morrison went to St. Louis where he practised in partnership with his younger brother William (the inventor of the gold shell crown).

In 1861 or 1862 he came to Europe and practised first in Paris for about two years with Dr. McKellops, a fellow American dentist. Later he came to London where he stayed for six years to work in the practices of Mr. (later Sir) John Tomes and Mr. Sercombe. It is said that the inspiration to start work on his dental engine came from a London friend who said to him before his departure for his native land, "The next thing I hear from you will be that you are filling teeth by machinery".

On his return to America, Dr. Morrison worked on the construction of his dental foot engine for which patent was granted on February 7, 1871.

Dr. Morrison was a man full of ideas and the profession is indebted to him also for a dental chair (patented in 1887). In later years he lived quietly in semi-retirement. He was quite prosperous and lived to an old age.

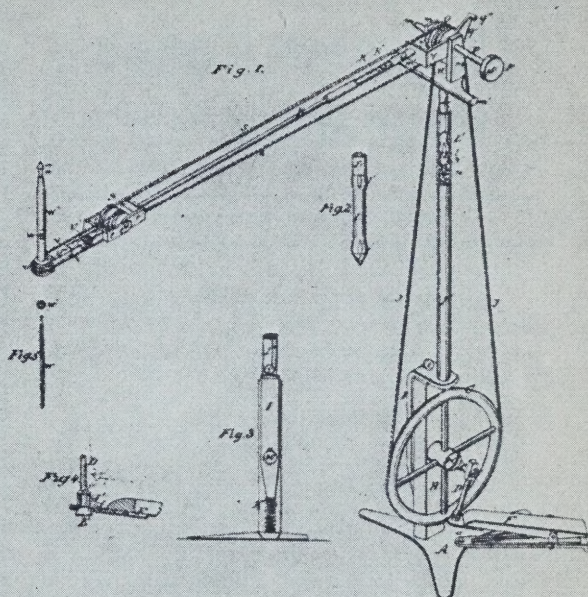




J. B. MORRISON.
DENTAL ENGINE.

No. 111,667.

Patented Feb. 7, 1871,



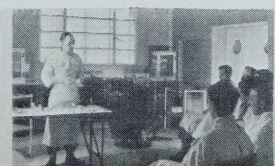
Witnesses
Wm. H. Brewster
Geo. L. Egan

Inventor
James B. Morrison,
137 Knight St. N.Y.C.

Morrison's foot engine was the first of a long line of effective mechanical aids for cavity preparation and the many other processes for which a rotary tool is of use to the dentist. It encouraged the employment of electrical power for rotary dental appliances and a number of the many types of electric motor which were invented during the two decades following its introduction were used to drive Morrison's foot engine or modifications of it. It made possible the development of many forms of hand-piece and of special attachments such as those for condensation of gold foil, for amalgam packing, for gingival massage and for laboratory purposes of many kinds. These handpieces became the forerunner of the present day air turbines and electric micrometers which, in fact, employ principles that had been tried by George Green in his engine driven by "a little windmill" and his "electrical burring engine", both of which he first introduced in 1870.

Modern dentistry and in particular restorative dentistry would be quite impossible without the cutting tools which help the practitioner to perform his varied and precise operations and for this reason it is appropriate to remember with gratitude Dr. James Beall Morrison and to honour his memory on the centenary of the date of his first patent, February 7, 1871.

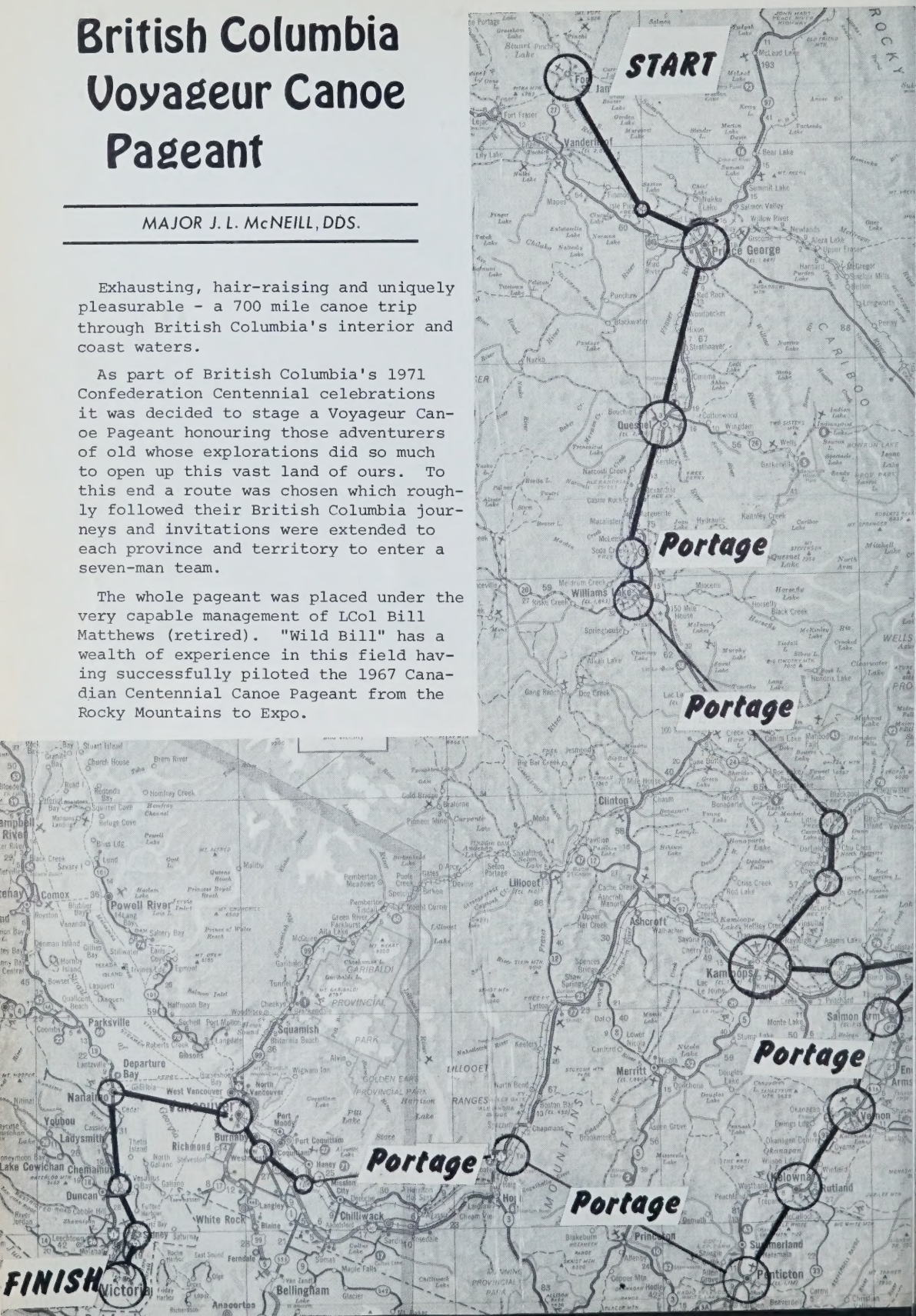
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Volume 130, Number 3, of 2 February, 1971.



MAJOR J. L. McNEILL, DDS.

As part of British Columbia's 1971 Confederation Centennial celebrations it was decided to stage a Voyageur Canoe Pageant honouring those adventurers of old whose explorations did so much to open up this vast land of ours. To this end a route was chosen which roughly followed their British Columbia journeys and invitations were extended to each province and territory to enter a seven-man team.

The whole pageant was placed under the very capable management of LCol Bill Matthews (retired). "Wild Bill" has a wealth of experience in this field having successfully piloted the 1967 Canadian Centennial Canoe Pageant from the Rocky Mountains to Expo.



The Victoria-based 3rd. Battalion, Princess Patricia's Canadian Light Infantry provided the logistic support for the pageant. Prince Edward Island, not having a canoe club, decided it could not enter a team, so arrangements were made to have 3 PPCLI enter a team in PEI's name. LCol TMC Morsaw, the CO of 3 PPCLI, felt it would be appropriate to have the team consist of as many native Islanders as possible. The team consisted of five native and two adopted sons.

Although two weeks of practice time was arranged, no coach was available and the total canoeing experience of the team was practically nil. However, this period did enable the crew to learn some of the basics and to partially overcome the protests of previously unused muscles.

The canoes to be used were 25-foot Nor-Westerns, made of fibreglass painted to simulate birch bark. Each weighed 300 pounds and was manned by six paddlers. When handled properly this is quite a stable craft capable of navigating very rough water.

The canoe contains six full width seats which enable the paddlers to quickly change sides about every 20 strokes - every ten in a sprint - thus allowing alternate sets of muscles to rest. This changeover is accomplished with the loss of only one stroke. Normal paddling is done at a rate of 50-55 strokes per minute but increases to 85-90 at the start of a sprint race.

One mathematical wizard estimated that during the trip he had slid approximately ten miles, wearing out two pairs of pants and at least as many layers of skin.

On 23 July, 84 canoeists from all across Canada met in Fort St James to make the final preparations for their epic voyage. For many it meant renewing old acquaintances from previous canoeing events. For some of the team from the Northwest Territories it meant their first air trip, their first car ride and their first look at live horses and cows. For all it was a chance to meet an extremely friendly and interesting group of people. They came from all walks of life: students, including two dental students, loggers, trappers, teachers, truck drivers, mill workers, business

men, construction workers, a bank manager, guides, salesmen and even a professional hockey player in the person of Gerry Hart of the Detroit Red Wings.

The next day was spent making last minute minor adjustments to the canoes, and in practicing the intricate manoeuvres which were to be part of the show. It was perhaps fitting that Fort St. James was chosen as the starting point, for it was from here in 1808 that Simon Fraser started on his historic voyage to the sea. For those not familiar with the geography of the area, it is 120 miles west of Prince George and almost in the exact geographic center of B.C.

Sunday, 25 July, dawned bright and clear, and under cloudless skies which followed them to Victoria, the canoeists were blessed by a priest and wild flowers were placed in the bow of each canoe by the local beauty queen. Then to the cheers of hundreds of well-wishers on shore, the skirl of bagpipes and a cannon blast, the modern day voyagers were away on a twenty day trip which would carry them through many of B.C.'s major waterways.

Each day the canoe brigade, accompanied by a safety boat, would cover a predetermined route bringing them usually to a major center, where an intricate canoeing display and two-mile sprint would be staged. As the canoes arrived at each stop, they would come into view of the townspeople two by two with flags flying and dressed in gala costumes. To announce their arrival, a small signal cannon would be fired from the PEI canoe. The Pageant's shore party, which included pipers and drummers dressed in old style uniforms would fire a salute from another cannon (an authentic piece borrowed from the Maritime Museum in Victoria). This salute would be returned by the signal canoe.

After putting on their display, the canoes would approach the shore and the selected "Canoe of the Day" would make presentations to the local dignitaries and in return receive gifts for the canoeists.

The sprint race, set up to ensure maximum viewing by the spectators, was the highlight of the day. These races earned points for the teams, with a first place winner receiving 12 points,

second place 11 points and so on down to 1 point for 12th. place.

FROM THE DIARY OF THE PEI TEAM
CAPTAIN - MAJOR J. L. McNEILL

Sunday, 25 July. Two miles from Fort St. James we hit our first white water. The men in the safety boat, both expert canoeists, assured us that it was nothing compared to what we would meet later on. However, since it was our first rapid we were naturally quite excited. Once past the rapids, the river became very sluggish for the next 50 miles, then picked up again and produced a couple of very enjoyable chutes. Alberta went over a six-foot drop and swamped but were able to get the canoe ashore with no problems. Another chute produced six-foot waves which made for a rather wild ride.

The last ten miles were really dragging as by then we had been paddling for ten hours. If someone had told me a couple of months ago that I would paddle 80 miles in one day I would have suggested that he have his head read. As we were camping in the wilderness that night there was no show or sprint.



PEI team with historic Fort St. James and paddlers' camp in background. From bow to stern: MCpl JW Lloyd, MCpl RJ Faulkner, Pte J McGinnis, Cpl SWR MacMillen, MCpl W Lee, Maj JL McNeill. (Missing from photo: MCpl R Walsh).

Monday, 26 July. One of the safety boat men paddled in our canoe for an hour and taught us quite a bit about

reading fast water. We found it much easier then but we still have a lot to learn. With a good current helping us, the 50 miles to Prince George went quite quickly. Again some nice white water to add spice.

Tuesday, 27 July. Today we tackled our first 88 miles of the mighty Fraser. Our first real challenge was the Fort George Canyon. The current runs through here at 15-19 miles per hour with a lot of whirlpools, high waves and rocks. It is interesting to note that Sir Alexander Mackenzie elected to portage around this obstacle and Simon Fraser found his canoes almost unmanageable in its' grasp.

We were swept out past our advised route and struck a rock with such force that it would have torn apart less sturdy canoes. The power of the water was tremendous.

For the rest of the day we were in very fast water and small rapids, the worst of which was the Cottonwood Canyon and to quote from Mackenzie's journal: "Here the river narrows between steep rocks and a rapids succeeded which was so violent that we did not venture to run it". Actually, after portaging their supplies, some of his men did try running it and although they made it safely, their canoe was so badly damaged that it had to be abandoned. Fraser also portaged all his supplies around this canyon but managed to get his canoes through without incident.

At Quesnel all we could do was again simple criss-crossing and a downstream sprint race. A marking buoy consisting of an inner tube and 200 pounds of scrap iron could not be used because the current swept it downstream. Again we placed tenth in the race.

Wednesday, 28 July. Quesnel to Williams Lake - a fairly easy 59 mile run. The river is fast but contains only a few minor rapids. A couple of the canoes got on the wrong side of a log boom and were being swept into a saw mill when their mistake was discovered.

We said good-bye to the Fraser at Williams Lake. We will not see it again until we get to Vale. We put on a full show and sprint at Williams Lake and ended up in twelfth place.

Thursday, 29 July. A very easy day. The canoes were portaged by truck over to Little Fort on the North Thompson

River. Somehow or other during the launching of the PEI canoe, it was run into by the ferry. I never did find out exactly how it happened. However, only minor damage was done.

From Little Fort to Barrier was only 20 miles, hardly enough to wake up an appetite. No show or race.

Friday, 30 July. A real fun day at Kamloops, our stop for that day, is only 40 miles from Barrier and as we had all day to get there, we felt no need to over-exert ourselves. Besides, the temperature was up around 100°. As a result, much of the day was spent with the canoes tied together leisurely drifting down the beautiful North Thompson. A great deal of time was spent telling jokes, swimming and singing such old-time favourites as "Allouette", "North Atlantic Squadron" and a slightly modified version of "Old MacDonald". We put on a full show and placed eleventh in the sprint.



B.C. Highways Minister Phil Gaglardi welcoming Maj McNeill to Kamloops.

Saturday, 31 July. Today we made up for the ease of the past two days with a 39 mile paddle up the South Thompson to Chase. Unfortunately most of us had partied rather late the night before and were a sorry feeling lot when we shoved off at 5 a.m. Eleven hours and many pledges later we dragged ourselves ashore for a couple of well deserved hours of sleep before putting on the full show and sprint in which we placed eighth. The people at Chase really went out of their way to ensure us a good time.

Up to this point one of the most interesting aspects of the journey has been the character of the water. Now for the next five days we were to be in lakes which, while very beautiful, lacked the excitement of the fast water.

From Chase we paddled through the Shuswap Lakes to Cinnemousen Narrows then on to Salmon Arm. Next we portaged to Okanagan Lake and spent nights at Vernon, Kelowna and Penticton. Our visits had been timed to coincide with the Kelowna Regatta and the Penticton Peach Festival. Need I say more?

From Penticton we portaged back to our old friend the Fraser River and spent the night at Vale. Fortunately we did not have a show to put on until the next day as one of our buses was delayed eight hours by a breakdown.

We could only put on a limited show and an unofficial sprint as the water was too swift to allow us to line up for a fair start.

From Vale we again portaged, this time to Fort Langley. Originally we were to paddle this distance. However, it could not be worked into our schedule which called for us to be in Victoria on 12 August.

I certainly won't forget Fort Langley. While loading charges for our signal cannon, I carelessly set fire to some black powder. This resulted in my having a beautiful night's sleep in the local hospital aided by 100 mg of Demoral. A badly burned wrist kept me out of the canoe for the next couple of days.

Next it was on to Vancouver, probably the most disappointing stop of the trip. Although there was a fairly large crowd on hand to greet us, there was no city official present and to add to our poor opinion, many of the paddlers got liberally splashed with oil when an oil slick was encountered.

Monday, 8 August. Everyone was up at 2:30 a.m. in preparation for a 4 a.m. departure across the 40 mile wide Georgia Strait to Nanaimo. Anyone familiar with the strait is aware of the strong tides and vicious storms which can develop. Our departure was timed to coincide with the slack tide and hopefully the morning calm. Once more luck held and the strait was relatively calm. To ensure our safety, we were accompanied by several larger vessels including an RCM Police (Marine Division) ship, capable of lifting all the paddlers and

Ontario
in
action



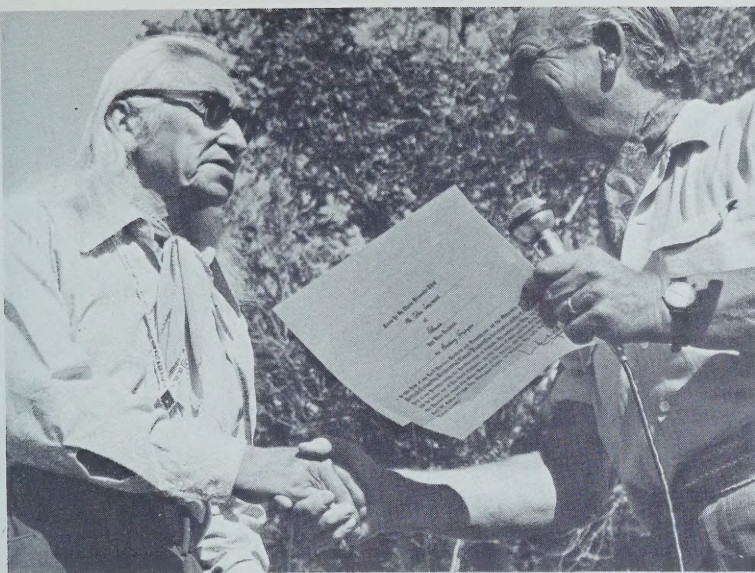
Manitoba, overall winners.



New Brunswick, the strongest crew in the Pageant. They won the last six sprints but this was still not enough to overcome a few bad races at the start of the pageant.



North West Territories team - all Indian - the smoothest working in the Pageant.



Chief Dan George
being made an
Honorary Voyageur
at Kelowna by
LCol "Wild Bill"
Matthews, the
Chief Voyageur.

canoes from the water in the event of a sudden squall.

Many of the paddlers had never been on salt water before and the tides and variety of sea life were a constant source of amazement.

From Nanaimo our course continued down the coast of Vancouver Island with stops at Crofton, Sydney and finally our journey's end, Victoria. This final day was also one of the hardest and exciting as our good weather finally deserted us and we had to contend with high winds and a white water chop. Victoria harbour was a welcome sight indeed. A crowd of 5000 was on hand to witness our last show and sprint which was even more exciting than usual. During a pile up at the first turn, one of the Yukon paddlers failed to execute the change-over properly and found himself swimming rather than paddling. Then in the final stretch the Blackball Ferry came charging through the race course, narrowly missing the lead canoe.

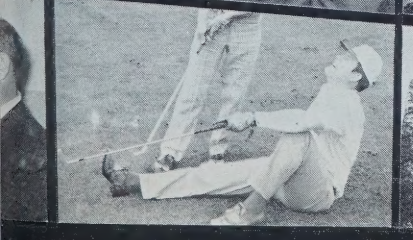
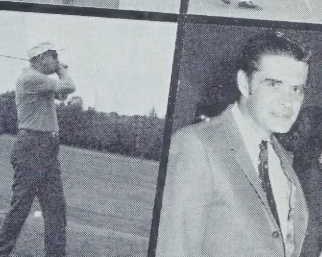
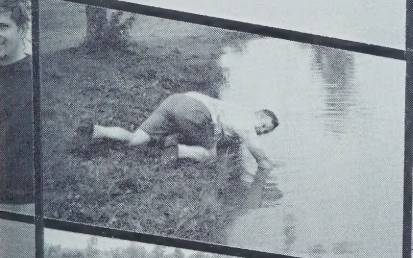
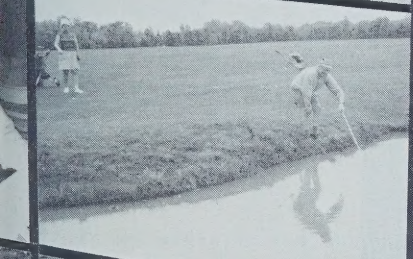
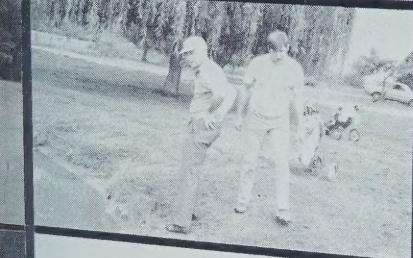
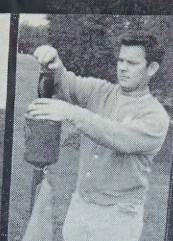
That evening, we were hosted by the B.C. government to a very enjoyable banquet. Speeches were made and the trophy, medals and prize money were presented. Manitoba was the overall win-

ner, with New Brunswick a very close second. Quebec was in third place followed by Ontario, B.C., Northwest Territories, Saskatchewan, Yukon, Alberta, Nova Scotia, P.E.I. and Newfoundland.

The unsung heroes of the Pageant had to be the 33 members of 3 PPCLI making up the logistic support party. These men performed a great variety of tasks, many of which they had no previous experience in. The dedicated way in which they performed speaks highly of both themselves and their training. Sufficient to say they gained the respect and admiration of all the paddlers and the many other civilians with whom they came in contact.

The whole Pageant had been very enjoyable and interesting. It afforded us an unique opportunity to meet people from all across Canada, see a lot of beautiful country and to achieve the satisfaction of knowing that in our own small way we had paid tribute to the founders of our country and helped obtain just a bit more Canadian unity.





Capt WJ Percival
receiving the
Covey Trophy
(low gross for
eighteen holes)
from Col GR Covey



ICol GE Windsor,
Capt WJ Percival
and Capt CW Kearns
(13 Dental Unit
team) receiving
the RCDC (R)
Officers' Trophy
from BGen Garth
C Evans

Capt CW Kearns
receiving the
KM Baird Trophy
(low gross for
36 holes) from
BGen KM Baird



ANNUAL GOLF TOURNAMENT

16~17 SEPTEMBER at *CFB Trenton*

A new record of 122 golfers participated in a most successful Ninth Annual CFDS golf tournament at CFB Trenton for the second time. The weatherman played ball with the golfers as his predictions of cool, pleasant weather held true and was most favorable to all.

The CFB Trenton Yacht Club was used for social evenings on 15 and 16 September and was well patronized. The Presentation Dinner was held in the Airmen's Mess on the 17th. with 150 in attendance.

W BGen KM Baird hit the first ball in the tournament followed by golfers of varying calibres.

The low gross scores in the tournament were: Capt Kearns (13) - 166, CWO Batten (retired) - 169, Capt Percival (13) - 172, Major Headley (14) - 175.

A record nine three-man teams competed for the RCDC (R) Officers Trophy with the following results: 13 Dental Unit winning with a gross score for 36 holes of 532 or 88-2/3 strokes per round.

• • •

October is CFDE month

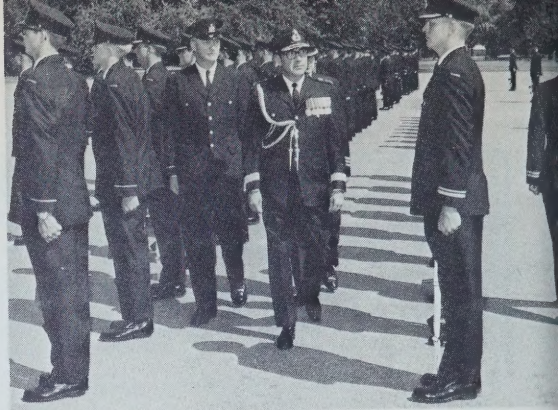
The Canadian Fund for Dental Education has designated October as the particular month for its financial development. The monies used by CFDE are given voluntarily by dentists, dental associations, dental auxiliaries and business and industry. The contribution of every dentist is vital in helping his profession and in expanding dental education.

In 1970, the Fund gave over \$77,000 in grants, which included monies to the ten Faculties of Dentistry in Canada to assist in dental education and research. In the nine years of the Fund, over a quarter of a million dollars have been provided to keep dentistry moving ahead, all through voluntary contributions.



CANADIAN FUND FOR DENTAL EDUCATION
234 ST. GEORGE STREET, TORONTO 180, ONTARIO

DENTAL OFFICERS TRAINING PLAN



Chilliwack. Officer cadets being inspected by the DGDS, BGen Garth C Evans, at the graduating ceremonies on 19 August. Officer Cadet RB Johnson, parade commander, accompanied BGen Evans.



Borden. 2Lt JCRP Larose being presented with the Honor Cadet Phase III award, 5 August.



Chilliwack. Best candidate award presented to Officer Cadet RB Johnson (University of Manitoba), who achieved the highest grade military skills and knowledge.



Borden. 2Lt RA Hodge, Honor Cadet Phase II, receiving his award.

This past summer 29 men in green (and one in brown) converged on the CFDS to undertake annual training. Ahead of them lay many days of clinical procedures, laboratory, first aid, riot control, mass casualty care, drill, range qualifications, field training, preventive dentistry, field brush-ins along with other related and unrelated subjects. Although the training was both demanding and time consuming, all indications lead us to believe numerous reconnaissance patrols were sent to such places as Wasaga Beach and Ontario Place with tactical success.

Candidates comments were enthusiastic concerning training in general and about field training in particular where all enjoyed themselves and performed to expectations.

Graduation ceremonies this year took a different course, consisting of individual unit mess dinners and Bar-B-Qs to be followed by a combined parade of all officer trainees at Base Borden.

Again this year suitable artistic achievements appeared the morning of the graduation parade. The painting of the Sherman tank in front of the Waterloo Officers Mess was mysteriously undertaken for the fourth year to mark the return of the "Pink Panther Division". The parade square was appropriately adorned in a manner which left many parade personnel and visiting dignitaries wondering who "Craigie's Commandos" were.

NEWS

DENTAL SERVICES SCHOOL

by Warrant Officer P.D. Peterson

VISITS

The new commander of Training Command, MGen WA Milroy visited the School on 9 September ... LCol PS Sills attended the Northern Ontario Dental Association convention 10-12 September and presented a paper on *The Challenge of Stability in Complete Denture Treatment*. Major JF Begin also attended this conference and presented a paper on *The Concepts of Prevention as Practiced by the Canadian Forces Preventive Dentistry Program* ... Maintaining the high pace, LCol Sills visited the London Dental Society on 23 September to present a paper on *Diagnosis of Complete Denture Complaints*... Then, with Major LA Reynolds, he travelled to Ottawa for the Canadian Dental Association convention 29 September to 2 October, and presented a paper titled *Trouble Shooting in Removable Partial Dentures* while Major Reynolds held forth with a paper on *Periodontics for the General Practitioner*.

PROMOTIONS

A pleasant afternoon was recently spent soaking up a few ales at the expense of one of the CFDSS officers. As everybody knows, it isn't easy to get an officer to spring for the booze. In this case however, it was easier than usual. The occasion was the celebration of Major HW Brogan's promotion to LCol on 1 September.



THE BIG PLUNGE

Cpl TJ Cooper proceeded to the University of Manitoba on a year's leave of absence without pay to attend pre-dental training with the ultimate aim of obtaining his DDS. He was well started on his way by the sympathetic staff of CFDSS who presented him with an oversize lunch box (attache case), two (dry) peanut butter sandwiches and an old oil lamp (to be burned late at night).

RETIREMENTS

For Sgt CW "Smitty" (What else?) Smith, a long and illustrious career has been completed. After 25 years, the majority of which was spent in the

RCAF, Smitty has taken the plunge and returned to civvy street. Although his time with the CFDS was relatively short in comparison to his many years of service, we feel that any person who devotes a good part of his life and gains the type of experience that Smitty has gained is, on release, a loss to the Canadian Forces.

POSTINGS

Farewells were extended to Capt Maxie Fisk on posting as CO 1 Dental Equipment Depot, CFB Petawawa.

12 DENTAL UNIT

by Lieutenant D.E. Fraser

NEW DETACHMENT

The dental team of Capt EW Graham and Sgt JM MacLean were posted to CFS GANDER in Newfoundland 23 August.

NORTHERN TOUR

Capt Ron Woodworth and Cpl Danny Calnen recently completed a tour on HMCS PRESERVER. Dentistry on this ship is provided in a dental van chained down in the helicopter hangar in the ship. While in the FROBISHER BAY area, the dental team were besieged by Eskimos seeking emergency dental treatment. Many of them had travelled great distances by canoe upon hearing a dentist was aboard the Canadian Forces ship. Forseeing problems, Capt Woodworth wired 12 Dental Unit for a supply of local anaesthetic. The message was passed to 15 Dental Unit supply section who prepared the anaesthetic for air drop and shipped it by Nordair to Frobisher Bay within 26 hours of 12 Dental Unit receiving the message. The dental team were then able to provide the much needed service.

HONORS AND AWARDS

On 16 September, Sgt Wilf Wylie, on behalf of Col SG Bagnall and the personnel of 12 Dental Unit, accepted a CAMPAIGN AWARD FOR OUTSTANDING CITIZENSHIP in recognition of 12 Dental Unit exceed-

ing its expected quota to the United Appeal Campaign in 1970.

ITEMS OF INTEREST

We are expecting a MOOSE BAR-B-Q in Summerside in the near future. Capt Doug Stewart (alias DEAD EYE) had his name drawn enabling him to purchase a moose licence in his native New Brunswick ... Pte Pat King, a clerk in 12 Dental Unit, tells this story. His landlady watched a chap put a key in Pat's car door, open it, put another key in the ignition and drive away. Thinking it had been a friend of Pat's, she said nothing. The car was located by police two days later stuck in the woods about seven miles from Halifax. Pat has since decided to purchase theft insurance ... DOMINION DAY was for the children. At least in the Halifax area of 12 Dental Unit. On 1 July a picnic was held at SHUBENACADIE WILD LIFE PARK. It turned out to be the largest gathering of 12 Dental Unit people in a long time ... the Jacques Cousteau of the CFDS, Lt Bill Jackson, was called upon to don his SCUBA gear and help carry out an underwater check for obstacles that could damage HMCS FRASER, scheduled to dock at DIGBY N.S. He is now checking to see if he qualifies for the special pay granted to navy divers. Bill has been active in the underwater sport for nearly twelve years and because of his ability and know-how as a diver, he has been called upon to assist the Services and the public in time of need ... Col SG Bagnall, Major H Meisner and Capt JB Delong attended the Nova Scotia Annual Dental Meeting in Digby on 13-14 September.

SPORTS

Major Harry Amos was selected by the P&RT department of CFB Halifax to attend an International Volleyball Coaching Clinic in Calgary 12-16 July. This is the highest calibre volleyball clinic ever conducted in Canada and included coaches of the national teams of the U.S., Japan and Canada. Major Amos is now qualified to run coaching clinics at the local level ... Salt spray, wind, a daily tot and - Capt Ron Woodworth, a sailor at heart - was a crew member of the TUNA, one of two yachts entered by Maritime Command in the MARBLEHEAD TO HALIFAX Ocean Race. The TUNA did not win but as Ron says with a big smile -

"We got back!" ... Sgt Brighty and Cpl Arbour of CFB Summerside recently participated in a deep sea excursion. The price of their mackerel is reported to be 65¢ a pound. Four mackerel are better than none but were quite expensive in relation to the market price of two for a quarter.

35 FIELD DENTAL UNIT

by Sergeant W.B. Looker

FIELD TRAINING

Personnel of 35 Field Dental Unit took part in field exercises with 4 Canadian Mechanized Battle Group during August, September and October. During the exercise - eight weeks long - which took place in the southern part of Germany from the Swiss border to within 60 kilometers of the Czech border - many moves and many, many kilometers passed under the wheels of the dental vehicles. The dental contingent was lead into the field by Capt Jack Montgomery, Sgt Bryan Looker and Cpl Tom Taylor. (Advance Party?? DENTALS???) They were followed by Capt Ron Gish, WO John Fret, Major Andre Boucher, WO Jim Bleakney and Capt Ehart Schroeter and Cpl Garry Jones. The exercise was a long one but much valuable experience was gained.

PHYSICAL FITNESS

As is the case twice a year, all members of the Canadian Forces in Europe must pass a physical fitness test. As usual, the non-field types in BADEN have completed the testing first. (O! to be in Baden ... no field work!) However the LAHR clinic will be reporting after the exercise in mass ... girls too! Very likely the press will be on hand to record this event for posterity.

TA TA

35 Field said farewell to Capt Reese Jackson at a small get-together at No 1 Clinic. Reese has served 31 years with the Forces, all of it with the Dental Services. He and his wife will be settling in England.

MISCELLANEOUS

Since his arrival in SHAPE, Major Vic Lanctis has been kept rather busy. Among other things, he was selected as a member of a jury - for a beauty contest. Some guys have all the luck! ... When in Europe - travel! So seems the trend: LCol JM Donely and Capt Dave Morrow - Denmark, Norway and Sweden; Capt Ron Gish and Sgt Buxton - Cyprus; Capt Bill Gray - Italy; MWO John Hutchinson - Canada; Cpl Gerry Lamontagne - Denmark; Sgt Glynn Challenger - Spain.

SPORTS

Tom Deloughery has bitten off a large piece of the winter sports pie - he is the coordinator for the Baden Bantam League ... Not to be outdone by Tom, Bob Wormington has taken to the sports air waves. He has two 10-minute sports casts each day on the Baden radio station. He will also be taking part in the Baden Raiders Hot Stove League. If that isn't enough, Bob also plans to play for the Baden Senior A League. In between these activities, he plans to drop into the clinic now and then to collect his mail ... TOUR DE FRANCE - well, hardly, according to Capt Dave Morrow. As a matter of fact, he puts it as a "very modest distance". He and Capt Bill Gray are planning a 350 kilometer (217.4 miles) cycling tour of France, complete with wives following in cars.

13 DENTAL UNIT

by Sergeant E.S. Beattie, CD

TAPS

The OAKVILLE clinic was closed out and the equipment removed on 25 September by MWO RG Hopkins assisted by personnel from the Base Toronto Detachment.

THE WHEAT ...

Col WR Thompson and LCol WW Anglin from Base Trenton, Major CJ Sivell from Base Toronto and Major GR Nye from Base Petawawa attended the Canadian Dental Association convention in Ottawa 29 Sep-

tember to 2 October ... Miss J Dobson terminated her connection with the dental detachment at CFH Kingston in August to accept a position with Dr RA Fell in his new Kingston practice ... The new clinic at Base Petawawa was visited in July by BGen MJ Richard, Deputy Commander Mobile Command, BGen SV Radley-Walters and BGen JW Quinn, the new commander of Base Petawawa; BGen WG Leach, Deputy Surgeon General visited the Petawawa clinic in August ... MGen WA Milroy, new commander of Training Command visited the CFH Kingston clinic in August ... Capt RJ Shirkey and Cpl DJ Morphett returned to Base Toronto after spending the summer with the Army Cadets at Camp Ipperwash ... Base North Bay clinic personnel are participating in PROJECT MOUTHGUARD, making mouthguards for North Bay students playing contact sports. The work is done two evenings a week in a local collegiate ... The exercise RUNNING JUMP has reduced the patient treatment numbers at several clinics ... At the Base Petawawa detachment, Capt PD Higgins and Pte KLM Davis left for Base Galetown to work with 1 Signal Regiment of Kingston ... Capt GE Rocque and Sgt IG Proud were attached to 2 Combat Group Headquarters at Base Galetown

AND THE CHAFF ...

Major JJ Walker suggests that anyone who copes with Toronto traffic might well be entitled to some form of danger pay, particularly after spending three years in sedate and quiet Clinton ... Major CJ Sivell and Sgt RS Lindsay took turns in hospital this summer. Major Sivell continued his rest by taking two weeks leave in Grenada, West Indies ... Miss FE Evans now works for the London detachment since the closure of Base Clinton ... Cpl WR McIntosh passed a philosophy exam, completing his fourth first-year credit towards a BA degree. He is an extension student at Nipissing College of Laurentian University. At the detachment he has been appointed "Resident Philosopher" ... Capt BW Yates after four weeks leave, had the misfortune to suffer a slipped disc on his return train trip from Moosonee (rough railroad!) He was restricted from lifting, sports, etc., for six months. He says this will be his longest winter as he has already sold his snowmobile ... The Base North Bay newspaper *The*

Shield has a new editor-in-chief. Major H Griesbach, after an eighteen year sabbatical from journalism, has been recalled to Gutenberg's guild.

Preventive Dentistry



Is it really necessary? ... Well, maybe it won't be too bad ...

The feelings of most service personnel are eloquently portrayed by a wandering *Marmota Monax*, more commonly known as a woodchuck. The reluctant recruit reported to the Base Trenton preventive dentistry clinic and was given royal treatment. After a lecture and examination, it was determined that although plaque was general, no caries were evident.

Capt MS Bouris, MWO RF Matheson and MWO VR Kidd attempted to educate about 1,300 air cadets who scurried in and out of the preventive dentistry clinic this summer. They attempted, by demonstration and eloquence, to lift these caries prone individuals to more elevated heights of dental IQ. As reports go, the team found the cadets enthusiastic to plaque control procedures - even to the point where more of MWO Kidd's pink fluoride cocktails were in demand - apparently to help digest swallowed pumice.

THE SPORTING LIFE

LCol GE Windsor and Capt CW Kearns were successful contestants in the Base Petawawa intermess golf tournament ... MWO RF Matheson played on the WOs and Sgts Mess softball team which were the league winners and playoff champions in

the Base Trenton intermess league ... Capt WJ Percival as Tournament Chairman for the Ninth Annual CFDS Golf Tournament was ably assisted by WO SH Lunnin ... Middleton Park community council has supported the Bantam All-Star team, coached by MWO Matheson and managed by Sgt Highfield for the second year. The team finished the season at the top of the league ... Major IAC MacDonald won the Base Kingston Golf Club trophy in all-match play ... Richard Matheson was awarded the most valuable player trophy in the Trent Minor Softball Association League ... LCol GE Windsor has been appointed president of the Base Petawawa curling club.

HONORS AND AWARDS

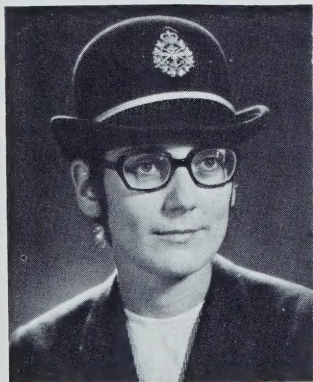
The Commander, CFB North Bay has commended Cpl McIntosh and family for the immaculate condition of the PMQ they vacated on moving to their newly purchased home in North Bay.

15 DENTAL UNIT

by Sergeant J.R. Joly, CD

WOMEN'S LIB

A precedent was set recently when the first female administrative officer to serve in the CFDS was posted to 15 Dental Unit to replace Capt JP Carrier.



Lt VL Kwasnik came to the unit from CFB Rockcliffe where she had worked in the base administration section and

also in the construction engineering section. She is a graduate of McMaster University with a BA in Economics and Business. Her home is in Oakville.

Lt Kwasnik joined the Forces a year ago as a direct entry officer. She spent seven weeks on basic training at CFB Chilliwack and six weeks on administration at CFB Borden.

Lt Kwasnik is welcomed to the CFDS and in particular to 15 Dental Unit. LCol MacDougall says he is counting on her to give him some new ideas. (?)

POSTINGS

Capt JP Carrier was recently reclassified from DAO to PSPT/ADM and posted to CFB Shilo as Base Exchange Officer. Dental officers in the Montreal area gathered in the St Hubert Officers Mess on 7 September to "raise a glass" and wish him well in this new phase of his career.

Capt Mike Pilon departed in late July for the Canadian Contingent in Cyprus. Besides being missed as one of the mainstays of the St Hubert clinic, he is also going to be missed as an outstanding player on the Montreal Irish rugby team. As a member, he convinced his team mates that they should wear mouthguards.

RETIREMENTS

Majors Bellerose and Trepanier retired from the Forces on completion of short service commissions 1 September. Both officers plan to practice in Ancienne Lorette, a suburb of Quebec City.

WO Henry Couture, retired nearly two years ago after long service in the CFDS, has been working as a commissionaire at CFB St Jean and unfortunately has suffered a couple of heart attacks. Recently he received word that he had won the "Mini-Loto" for \$5,000 and although "on the job" when he received the news, he took to his bed to recover from the shock ... he was lucky he didn't win the \$50,000 prize!

SPORTS

Following a study session on Preventive Dentistry for unit dental officers, those attending the session were joined by other dental people in the Montreal area on 10 September for a golf tournament at Chambly golf course. The tour-

nament served as an excellent warm up for the CFDS Tournament the following week.

Cpts Lemieux and St Louis won all the honors in the Zone 6 tennis championships at CFB Valcartier 16-17 September. Capt Lemieux won the singles championship and they joined forces as a team to win the doubles.

14 DENTAL UNIT

By 707-975-272

THIS 'N' THAT

Capt JAG Boulanger (manager) and Sgt TRJ Kukurudziak (coach) guided the CFB Cold Lake junior baseball team to the league championship ... WO NJ Cable recently qualified as a SCUBA diver with the National Association of Underwater Instructors following eight months of training - that's a 1-o-n-g time under water ... LCol JJN Wright was recently elevated to a Fellow of the Canadian Academy of Oral Pathology, which now has a membership of fourteen ... Sgt DL Kerr lured Major RA Headley and Sgt DH Hardy to Victoria for a weekend of salt water fishing. Without photographic proof nobody really believes four big ones were landed. Perhaps they were eaten enroute home???

11 DENTAL UNIT

by Sergeant R.S. Walker, CD

SEA DUTY

Major John Eadon and Cpl Harold McGillivray departed 22 July for Hawaii for a month on board HMCS Columbia.

FATHER AND SON DAY?

Capt Peter Stirling travelled to CFB Halifax as a member of the Base Esqui-

malt rugby team competing for the Admiral Stirling Trophy east-west game. Peter is Admiral Stirling's son but this didn't help Esquimalt as they lost 10-8.

PHASE I DOTP

During their basic officers course at CFOC School, Chilliwack, DOTP candidates attended a Preventive Dentistry familiarization tour and a brush-in.



The group demonstrated a keen interest during the tour and asked many pertinent questions concerning their future service in the CFDS.

LCol NA Butcher attended the graduation parade and mess dinner for the DOTP on 19 August.

1 DENTAL UNIT

by M.W.O. E.E. McFadden, CD

CDA CONVENTION

1 Dental Unit was involved with Drs. Musaph and Parfitt who provided a screening orthopantomograph service for those attending the convention. MWO Barret with the help of WOs Piche and James, Cpls O'Dell, Gayler and Pockett, Pte Young, Mrs Jensen, Mrs Kelso and Mrs MacNamee were responsible for control of patients and processing of films.

Details of the CFDS Preventive Dentistry display is on the back cover of this issue.

SPORTS

A unit golf tournament was held at



Gloucester 6 October and involved about fifty serious and fun golfers including wives and husbands of CFDS personnel. Shortly after the last flight had tee'd off a rain storm hit the area. Only the most serious golfers finished the course. Major Marcil won the serious golf and everyone won on the monkey golf by having a wonderful time. The evening was spent in prize presentations and a steak dinner.

Seven representatives from 1 Dental Unit attended the annual Major Ed Gazo golf tournament. Major Marcil won a prize for second low gross.

1 DENTAL EQUIPMENT DEPOT

by Lieutenant R.J. Rutledge, CD

A mess dinner held 21 September in Major Cartwright's honor was attended by BGen JW Quinn, CFB Petawawa base



commander and base officers. Col JW Turner presented a framed crest on behalf of the officers of the CFDS. A mess gift was also given Major Cartwright.

A farewell party was held for Major Cartwright on 28 September in 1 DED canteen. Depot employees and their wives joined the incoming CO, Capt MB Fisk, in presenting a gift from the Depot staff. Lt RJ Rutledge presented



Major Cartwright with two plaques suitably engraved to remind "The Major" of the people who have worked for him at No 1 Dental Equipment Depot.

We hope these events assuaged the sadness of the end of a long career which began as a young storeman in the Dental Corps supply section in 1940 and ended as CO of 1 Dental Equipment Depot.

LOW WATER

The fishermen are all telling their usual tales - bigger, better and more of them - perhaps because of the low water in the Ottawa and Petawawa Rivers - the lowest in years. The fish have no place to hide???

DENTAL DETACHMENT CYPRUS

UPDATE

Capt JC Steel returned to Canada in August. His replacement, Capt MA Pilon, besides being active in rugby and glider flying, represented UNFICYP as a judge in a Famagusta beauty contest. Sgt H Ayerst returned to Canada in September and was replaced by Sgt CS Heather from CFB Petawawa.



TENTH ANNUAL C.F.D.S. BON- SPIEL

*...a little later than
last year ...*

CFB BORDEN • 3&4 MARCH 72

Professional Training

Major JF Marcil recently completed requirements for certification as a specialist in periodontics. In 1969-70 he attended the Advanced Theory and Science of Dental Practice course at the United States Army Institute of Dental Research, followed by a residency in periodontics at Walter Reed General Hospital.

He received his DDS degree from the University of Montreal in 1961 where he graduated with top honors. Major Marcil is now with 1 Dental Unit in Ottawa.





Major HS Wood recently received a Diploma of Dental Public Health from the University of Toronto on completion of a one-year course.

Since graduation from Dalhousie University in 1965, he has served as a dental officer at HMCS Dockyard, Halifax, and with 4 Field Dental Company in Germany. Prior to dental school, Major Wood was with the RCAF. At present he is the Preventive Dentistry officer with the Director General of Dental Services, CFHQ, Ottawa.

Major JH Marion recently completed his training in orthodontics at the University of Montreal.

He is a graduate of the University of Montreal where he received both his BA and DDS. Following graduation in 1958 he served in several postings in Canada before going to 35 Field Dental Unit in 1963. While in Europe he received additional training at the University of Freiburg.

Major Marion is now at the CFB Cold Lake dental clinic.



University of Toronto

Public Health, 15 September - June 1972

Major PR McQueen

Walter Reed Army Medical Center, Washington, DC

Preventive Dentistry, 19 - 21 October

Capt MH Cherun, Capt G Gunther

Canadian Forces Training

Canadian Forces Dental Services School, CFB Borden

Dental Therapist, PL8, 8 September - 22 December

MWO(W) CM Torrens, MWO RK Jones

Dental Therapist, PL6, 8 September - 16 March 1972

Sgts JAN Audet, JF Giroux, IA Braslins, LI MacLean, Miss W Burnham

Dental Equipment Maintenance Technician, PL4, 3 February - 10 August

Cpls RG Duffield, GW Bowman, J Beauchamp

Dental Laboratory Technician, PL4, 18 January - 26 November

Cpls GD Allen, RM Clarke, LA Lambert, LA Overbye, TJ Parent

Dental Clinical Assistant, PL3, 7 September - 10 November

Cpls CD Baldwin, FY Boosamra, JP Chasse, R Claveau, JR Cornett, V Gorman, JR Leblanc, JN Paradis, GL Payette, VL Petkow-Aramow, JJ Pouliot, C Rhealt, WC Spate, Ptes(W) NJ Chessum, GM Heinrichs, JA Hill, PS Lunney, VR Pafford, LC Vardy, Ptes JLD Cote, LD Payette, JALM St Pierre, RD Wade.

Canadian Forces School of Management, CFB Montreal

Work Study Orientation, 23 - 27 August

Lt RD Townshend

Middle Management, 30 August - 24 September

Capt CH Hawkins

Canadian Forces Staff College, CFB Toronto

Junior Staff Officers, 26 July - 1 October
Lt B Vandervaart

Canadian Forces School of Administration and Logistics, CFB Borden

Personnel Support Administration, 7 September - 17 October
Lt FJ Reid

Training with Industry

J.F. Jelenko Company, New Rochelle, N.Y.

Porcelain Bonded to Gold, 1 - 12 June
MWO EE McFadden

Ritter Dental Equipment Company, Rochester, N.Y.

Installation, Maintenance and Repair of Ritter Co. Equipment, 4-8 October
Cpl LJ Kallman

Honors and Awards

Colonel JW Turner: Fellow of the International College of Dentists

Dental Officers Training Plan, 1971

2Lt DR Wright	University of Alberta	Chief Instructor's Trophy
2Lt RA Hodge	U of Western Ontario	Phase II Honor Cadet
2Lt JLRP Larose	University of Montreal	Phase III Honor Cadet
2Lt KV Hansen	University of Manitoba	Runner-up, CI's Trophy
2Lt JERJ Gauthier	University of Montreal	Runner-up, Phase II Honor Cadet
2Lt WJ Jury	University of B.C.	Runner-up, Phase III Honor Cadet

Promotions

Lieutenant Colonel: HW Brogan

Captain: RD Townshend

Sergeant: RB Scheer, ME Mahlitz, JP Cliche

Master Corporal: GG Hildebrandt, GM Anderson, WK Jenereaux, I Linton, GE Sykes,
WH Renwick, JC Doucet, JE Frechette, DW Griffiths, LJ Nadeau,
JAG Riel, TH Taylor, JA Likins, BA Green

Corporal: SE Greene, JG Boileau, MM Boulanger, RA Powell, TJ Moore,
TD Manuge

Welcome

*

Bienvenue

*A cordial welcome is extended to: Pte LD Payette, Pte(W) JA Hill, Pte KCN Nickle,
Pte JA St Pierre, Cpl MS Wasson, Lt(W) VL Kwasnik, Mrs Lori Regan, Cpl WC Spate,
Pte(W) S Mahlmann. Have a happy career!*

Au Revoir



Farewell

Farewell and good luck to: Capt LJ Carrier, Capt DG Wilson, Sgt JH Kay, MWO SD Posnlnuzny, Cpl JJ Arsenault, Pte(W) BJ Hafermehl, Sgt A Bramble, Miss J Dobson, Pte(W) LC Kidd, Sgt DT McRoberts, Sgt KR Shappee, Sgt CW Smith, Sgt GH Taylor, Maj JR Bellerose, Maj JB Trepanier, Pte(W) HVP Martin, Cpl(W) M Masson, to St Mary's University under UTPM (or W as the case may be), Cpl JF Boulanger, Pte RP Shakotko, Pte(W) HC Christensen, Mrs Thelma Gendron, Miss Edith Whebell, Cpl JRA Desgrosseilliers, Cpl(W) MC Grandchamp, Capt RW Bowness and Capt JP Carrier, both reclassified to administrative positions.

Vital Statistics

Marriages

Many years of happiness to: Miss Mary Jo Ringdahl and Capt DF Graham, Miss Janice Skory and Major W Budzinski, Pte(W) SV Szablewski and Cpl Brian Hills, Miss Shirley May Fleet and Pte D Bowering, Miss Luella Marie Tompkins and Cpl JLA Viollette, Miss Dolores Giguere and Pte RP Shakotko, Mrs CN Colleaux and Mr WJ Coombes, Miss Brenda Donston and Mr RT Cowick, Miss Jo Ann Audrey Lang and Capt TA Rawlyck.

Births

Congratulations and may the next ones be quintuplicates. Sons: Cpl and Mrs W Mitrikas, Capt and Mrs RW Rix, Capt and Mrs WJ Percival, Capt and Mrs G Gunther, Capt and Mrs DA Graham, Sgt and Mrs OW Mandrusiak, Capt and Mrs CG Milne, Capt and Mrs ED Cragg, Sgt and Mrs H Clifton, Pte and Mrs RA Powell, Capt and Mrs WA Gray, Capt and Mrs JC Ayotte, Capt and Mrs DGJ Chausse. Daughters: Cpl and Mrs D Frerichs, WO and Mrs PD Peterson, Maj and Mrs RJ Paturel, Sgt and Mrs TR O'Meara, Capt and Mrs PE Arnold, Capt and Mrs M Blasetti, Cpl and Mrs JJ Pouliot, Capt and Mrs EG Schroeter, Capt and Mrs JJPG Duford.

Bereavements

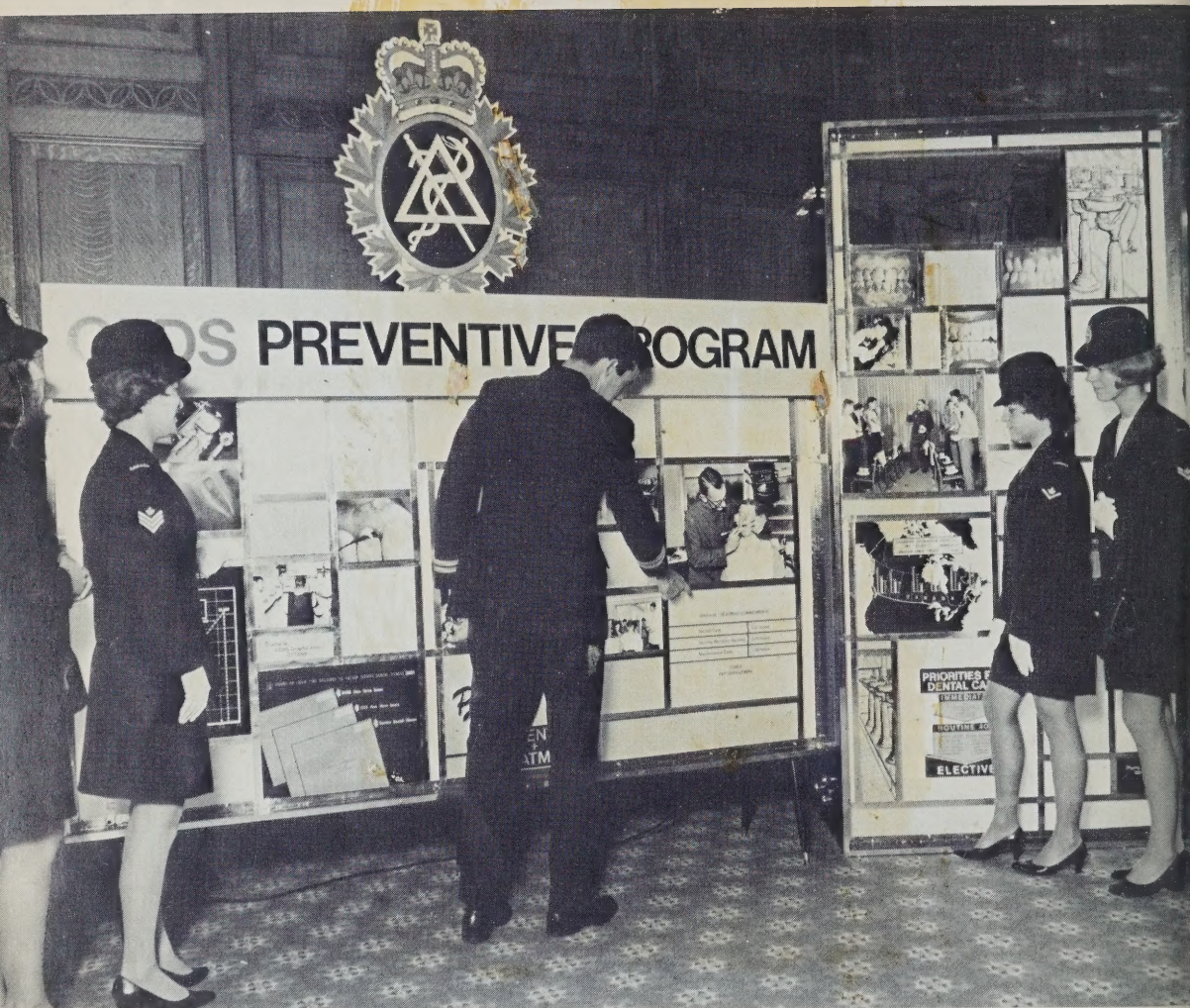
Deepest sympathy is extended to: LCol DH Protheroe on the loss of his mother and to Major DE McDermott on the loss of his father.

In Memoriam



With regret we announce the sudden passing of Captain John Winston Montgomery, DDS, on leave from 35 Field Dental Unit, and his father, Neil Edwin Montgomery, of Ailsa Craig, Ontario, a widower, in an automobile accident north of London, Ontario, on 11 September 1971.

Captain Montgomery was born 27 January 1941 and graduated from the University of Toronto in 1967. He is survived by his wife Catherine. Interment was at Ailsa Craig.



1 Dental Unit manned the Canadian Forces Dental Services display at the national convention of the Canadian Dental Association held in the Chateau Laurier, Ottawa, 29 September to 2 October. This display was recognized by many of the delegates attending the convention as the most colorful, informative and pleasing exhibit on view.

The display dealt with the theme of CFDS Preventive Dentistry and included all phases of preventive and restorative dentistry. Under the guidance of Major HS Wood, CFHQ Graphic Arts produced a display that was artistic to the extent of emphasizing each part of the CFDS program of preventive care through random lighting of colored photographs and sketches. In this manner all phases blended into a composite that 1 Dental Unit was proud to offer to its peers at the convention.

Manning the display were (left to right): Cpl(W) Fletcher, Sgt(W) Patterson, Capt Jackson, Pte(W) Duncan, Cpl(W) Greene and Sgt(W) Putnam. Capts Ames, Spencer and Gibbs (not shown) alternated with Capt Jackson. The new female green uniforms were received with great enthusiasm.

A dental officer and assistant were available throughout the convention and made available to those who requested them *The Manual of Preventive Dentistry, CFDS, 1971* and the *Annual Report*. There was no effort to solicit interest with these publications and consequently the great interest that was shown can be attributed to the exhibit itself.

The
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Quarterly

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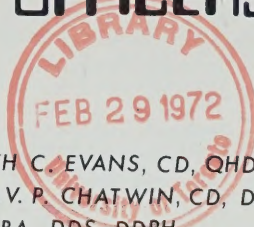
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A MILITARY DENTAL OFFICERS ATTITUDE SURVEY



BRIGADIER-GENERAL GARTH C. EVANS, CD, QHDS, DDS, FICD.
LIEUTENANT-COLONEL J. V. P. CHATWIN, CD, DDS, DDPH, FICD
MAJOR J. F. BEGIN, CD, BA, DDS, DDPH.

The objective of any organization is to ensure that its members are motivated and equipped to perform efficiently. To achieve this objective, those responsible for management of the organization must, among other things, determine the underlying reasons contributing to job satisfaction or dissatisfaction.

An organization large enough to hire a specialist, such as a dentist, usually creates a surefire source of conflict or tension. The specialist is often identified as having a focus of attention on his area of specialization and as conforming to its discipline and motivated by its incentives. The organization, on the other hand, requires its own discipline, whether for profit or, in the case of Service dentistry, traditional loyalty and conformity. Organizational rewards are provided. These rewards, in particular those of greater supervisory responsibility and promotion into administrative ranks, draw the specialist away from work in his own area and a conflict of interest can develop.

Additionally, the Service is operating in an environment of constant change and consequently there must be a continuing review of working conditions and attitudes among the dentists in the Canadian Forces Dental Services (CFDS).

Accordingly, in January 1971, a bilingual attitude questionnaire was mailed to all CFDS officers in the rank of captain to lieutenant-colonel inclusive, serving in Canada and abroad. Of the 188 mailed, 174 were returned in useable form, for a return rate of 92%. Anonymity was assured. The responses were transcribed to punch cards for computer input and programmed to provide consolidated printed data for analysis.

Because of the use of a full population of limited numbers and because of its special nature, anything less than 100% response rate is a likely source of bias. This was examined. Percentages for each age group, with percentages of respondents shown in brackets, were as follows:

under 26 years	- 12.3% (11.8%)
26-35 years	- 59.5% (60.3%)
36-45 years	- 14.4% (17.8%)
over 45 years	- 13.8% (10.1%).

This does not by itself fully demonstrate a significant lack of bias in responses; however, measures of those response variables being studied do vary by age and any failure to respond due to some reaction to the questionnaire would be reflected in a return rate differing by age.

In designing the bilingual questionnaire an effort was made to minimize bias and maximize the reliability of evidence collected. The majority of questions were of the closed type, prepared in such a way that the officer need only select his answer from a variety of choices. The first page solicited personal data under headings of rank, age, length of service and primary language. Other questions were included in order to gain specific information which would be useful for management purposes. The main body of questions was intended to measure job satisfaction. In addition, three questions asked the dental officer to score himself on a continuum: how he evaluates his status in comparison with his role as a dentist in the Canadian Forces; whether he intends to stay in the Service until eligible for pension. The responses to these questions were intended to assist in formulating general

conclusions regarding job satisfaction. Two open-ended questions completed the 57-question format. These gave each officer the opportunity to volunteer additional information about his special likes or dislikes as a professional in the Service organization.

Considering the dentist population in the Service today, it was found that 38 percent come from families where the father was either a professional, a business executive or the owner of a business. A survey of civilian dental students carried out by the Canadian Dental Association in 1963 showed that 56 percent came from families in these same categories. Virtually all dental officers now serving are products of the Dental Officer Training Plan. This plan provides opportunities for upward mobility to substantial numbers of deserving individuals who might otherwise be denied professional training due to financial constraints.

Forty-two declared French as their primary language, 41 of these having received training at the University of Montreal. This group represents 25 percent of all officers surveyed.

Fifty-five percent of the officers indicated that their area of greatest interest in dentistry is general practice followed by 22 percent who favoured oral surgery. The remainder were divided between periodontics (6%), public health (5%), paedodontics (4%), prosthodontics (4%) and radiology (1%).

In civilian practice the trend is to group practice. Service dentistry provides considerable experience in group practice and the survey indicates that 80 percent favour this method of practice as opposed to 11 percent who prefer solo practice and nine percent who expressed no preference.

Psychologists frequently group job satisfaction criteria under two broad headings - *INTRINSIC* and *EXTRINSIC*. Intrinsic factors are self-actualizing or internally mediated. Dental officers were asked to assess their feelings regarding opportunities for achievement, challenging work, growth and development, recognition of professional status, recognition of work done, and responsibility and independence. Officers were then asked to indicate how important these factors were to them. Finally, they were asked to give their opinions

as to whether civilian dentists have more or less achievement opportunities than military dentists. Extrinsic factors are those which are subject to external or environmental influences. The general consensus is that of the two groupings, intrinsic factors tend to have the higher potential for determining job satisfaction.

The results of the survey show job satisfaction is enhanced by a number of factors. For example, one of the positive incentives offered by the Service is the challenging nature of the work. Dentists gain a strong sense of achievement from their efforts, thereby fulfilling important intrinsic needs. Without exception they consider themselves equal or superior to civilian dentists, in terms of professional skills, which is an important factor in the maintenance of professional integrity. Nearly all consider the standard of dental care offered to the serviceman is superior to that offered by civilian dentists to the population at large. They also receive considerable satisfaction from their opportunity to provide a superior standard of dental care and one which is not a financial burden to their patients. The majority feel that military dentistry offers them considerable scope for professional growth and development, both through clinical responsibilities and professional training opportunities. Other satisfiers are working hours, opportunities for travel and other fringe benefits associated with service life.

Factors which contribute to job dissatisfaction include two intrinsic factors, namely lack of professional status recognition and lack of recognition for work performed. According to the socio-economic index of occupational status based on income and educational indices, dentists rank second among 320 occupations identified in the 1961 census of Canada. The profession of arms are grouped together in one total. Thus while civilized dentistry enjoys very high occupational status, the status of military dentistry is inevitably lowered somewhat in the eyes of the general public through identification with the Canadian Forces, since the latter as a group have never been held in high esteem by the public at large, except in time of war.

Lack of professional status recogni-

tion is also evident to some degree within the military organization as revealed by dental officers who expressed dislikes associated with military constraints, role conflicts and lack of status. Dissatisfaction associated with lack of recognition for work done is assumed to stem from the transient doctor-patient relationships which characterize a military environment as opposed to the more lasting and satisfying relationships that would prevail under more stable conditions in a civilian community.

Extrinsic sources of dissatisfaction which may, to a degree, be correctable, are inadequate pay, quality of auxiliary staff, equipment and materials and quality of leadership.

Dental officers attach considerable importance to such factors as pay, pension, leave, postings and promotion. For example, 39 percent of the officers consider their pay is inadequate compensation for services rendered and 50 percent consider their pay and fringe benefits compare unfavourably to their civilian counterpart.

When asked to compare their working conditions, with particular reference to staff, equipment and clinical environment, to those of a civilian dentist, a sizeable majority (115 officers) indicated that military facilities were inferior. The importance of this response is confirmed by the fact that 81 officers referred to poor materials, equipment, facilities or working conditions, while 42 referred to the poor quality of auxiliary staff, when asked what they dislike most as a practising professional. To a separate series of questions, opinions regarding the quality of auxiliary staff, equipment and materials varied widely, indicating that possibly some clinics are better staffed and equipped than others. These two criticisms were also found among those most frequently volunteered in response to the open-ended questions at the conclusion of the questionnaire.

Almost without exception, officers expressed satisfaction with their working hours. However, feelings were mixed in response to the question asking whether dental care should be extended to include all Service dependants. Eighty-three officers indicated they were in favour whereas 51 were not in favour and

35 were undecided. Perhaps one group welcomed the increased variety and challenge of extended treatment services while a separate group may be concerned regarding a possible lowering of the standard of dental fitness of servicemen through acceptance of an additional volume of work.

The Dental Officer Training Plan is the main source of dental officers. Under this plan, an applicant is enrolled in the Canadian Forces and is fully subsidized during the professional years of university training. Summer employment is provided. An obligatory period of five years service follows graduation. There is, then, a semi-coercive element at the enrolment stage insofar as the applicant is attracted by the offer of necessary financial assistance. A consequence is that dental students and officers vary widely in their intention to make the Service a career and entry is permitted to those who may be adverse to continued employment as a professional in a large organization.

In response to the question, "Do you intend to serve until eligible for a service annuity?" 50 percent of the group appeared inclined to remain in the Canadian Forces whereas 21 percent were undecided and appeared to be making plans to terminate their service. Of the 29 percent of officers who either were undecided or are inclined to embark on a civilian career, nearly all held the rank of captain and the large majority had service ranging from one to five years in the Forces.

The collective responses of the 174 officers who replied show substantial evidence that the CFDS functions at a favourable level of job satisfaction. In answer to the question, "Taking all factors into account, are you satisfied with your role as a dentist in the Canadian Forces?" as might be expected the results showed that job satisfaction increases with rank. There is further evidence that this level is sustained more by the satisfaction its members gain from close identification with the Dental Services organization and its clear-cut objectives, than by identification with the Canadian Forces as a whole.

In spite of the apparent job satisfaction, 83 officers or approximately 50 percent, either do not intend to remain in the Service or are undecided. While

many of these may later decide to continue, their present uncertainty would indicate that the attractions of civilian dentistry, whether real or imagined, exert a major influence on the officer's decision whether or not to remain in the Service.

On balance, military dentistry as perceived by dental officers tends to compare unfavourably when weighed against the apparent rewards of civilian dentistry, particularly among the younger officers.

In answer to the questions, "What do

you like most about the CFDS as a practising professional?" and "What do you dislike most?" many respondents named a single like and dislike - others filled pages. It cannot be assumed that those who listed only one had no other opinions nor can it be assumed that the first of listed likes or dislikes was other than their initial reactions. However, a correlation can be made between the totals of all answers from all respondents and their first or only choice. Likes and dislikes were grouped and results are shown in Tables 1 and 2.

Table 1.

LIKES	LColts	Majors		Captains		Total All Responses	Total First Response
		(A)	(F)	(A)	(F)		
Opportunity to provide high quality dental care without consideration of financial constraints to the patient	8	22	6	39	13	88	73
Chance to practice ideal dentistry without pressures or stresses, with a degree of independence and no financial constraint to the dentist	1	3	2	28	7	41	27
The group practice concept: the opportunity to associate and relate to one's peers/colleagues/competent people; the experience gained; the variety of tasks.	5	6	5	19	4	39	22
General military life: periodic postings; the chance to travel; fringe benefits: leave, sports, recreation.	5	5	4	15	8	37	13
Fixed regular working hours	1	6	1	15	8	31	11

It was apparent that many of the officers gave considerable thought to the two unstructured questions. The bias inherent in this type of question should be reduced because of the nature of the study group. The remarks of these highly selected respondents who have a strong interest in the subject matter, greater education and a higher socioeconomic status warrant careful consideration.

Replies were to a large extent predictable. Of note was the frequent reference to the opportunities of group

practice in the Service, since this is a newer concept in civilian practice.

There was surprisingly little support for the often heard criticism that the Francophone members of the CFDS suffer unequal opportunity for advancement and consideration for training. Only three officers mentioned this point.

The complaint against insufficient pay and allowances as compared to civilian confreres decreased with rank. It can be assumed that officers are relatively more satisfied with their pay as they

Table 2.

DISLIKES	LCols	Majors		Captains		Total All Respon- ses	Total First Response
		(A)	(F)	(A)	(F)		
Material, equipment, clinic facilities	-	11	2	40	9	62	37
Atmosphere of indecision, insecurity, uncertainty and instability caused by postings	3	8	5	19	10	45	24
Auxiliary personnel: short-age, employment, attitudes, inefficiency	-	6	2	25	5	38	14
Pay and allowances	-	5	5	15	1	26	12
Laboratory services	1	3	3	15	2	24	10
General military constraints: secondary duties, lack of independence and freedom, parades, uniforms	-	4	2	6	6	18	12
Limited career prospects, promotion possibilities and system, rank structure per se	2	6	-	4	5	17	10
Lack of recognition of professionalism and status, both in and out of the service	1	4	3	5	1	14	6

get closer to retirement and the pension plan becomes more significant.

Military constraints and the authoritarian system generated various complaints. Surprisingly few dental officers objected to the use and requirement of daily work-sheets and monthly reports. There was some dissatisfaction however, not only with the concept of rank, but also with the calibre of some officers in positions of authority.

The complaints on the restrictions and double standards as applied to dental officers "moonlighting" were unusual in that not one Francophone officer mentioned this but 13 Anglophones made comments.

There was concern with problems associated with the shortage of auxiliary personnel, some of the equipment still in use in the CFDS and the constraints on laboratory services.

Throughout the answers a strong feeling and concern about the uncertainty in Service life was detected. There is a fear of undesirable moves and the personal problems these may create.

On balance, the dentist in the Service appears to be well motivated while working towards the completion of his fixed term of service. He has complaints regarding numbers of auxiliaries, supplies, equipment - all of which are easily explainable. Pay and allowances were not a significant dissatisfier. How then does he compare with other professionals working in an organization; is he any different from other university graduates? The majority of studies reported concerning specialists' attitudes and retention in the organization are concerned with engineers and research scientists.

Kornhauser¹ points out that incentives in organizations include greater supervisory responsibility and promotion into administrative ranks. This draws the specialist away from his own chosen field and may jeopardize his professional competence recognized by his peers. If he forfeits organizational rewards he tends to be disfunctional in his role and sees no recourse but to leave the organization.

The CFDS exists as a clearly identifiable entity of the Forces. Unlike the general case of engineers and scientists in industry, government service or in university, dental officers are not promoted into nonspecialist administrative posts. A hierarchy of ranks exists within the CFDS available only to dental officers. Organizational incentives are therefore limited to this narrow promotion pyramid and to professional pay. Permitted professional incentives also include an opportunity to specialize but the numbers are severely limited in such a small force.

Some theorize that employment situations are satisfying depending on the expectations of the employee. There is a direct relationship between expectations and the group that an individual employee singles out as his referant. Service dental officers are a singularly unique group in their homogeneity and in their clearly identifiable referant, the civilian dentist. Vroom² suggests that the major problem in this area is the determination and measure of expectations. A worker perceives an inequity, for example, to the extent that his referant group is paid more than he is. No causality may be inferred. The perceived greater civilian opportunity may be a product or justification for the decision not to serve, rather than the cause. For those who intend to continue to serve, generally those with longer service, a lesser civilian opportunity is perceived. It is unlikely that this perception changes with service. Rather, those who see greater opportunity as a civilian dentist are likely to have left. An important question is how those who are largely undecided about career intent perceive a civilian dentist's opportunity. The trend in this study is not marked - those with low intention see the civilian dentist as having the same or more opportunity. Those with high career intention see the civilian as having the same or less opportunity. Those undecided about career intent fall in between.

The high employment turnover rates (85%) among recent university graduates is well known, peaking within a five-year period. Herzberg³ reports the commonness of low morale among those under 30 years of age or within a few years of first employment. A clash of those values learned at university and those

of Service organization may, in part, explain turnover of younger officers.

A study of US Army non-career dentists⁴ found three main areas of concern:

1. restriction of patient care given by individual dentists;
2. restrictive administrative policies and practices; and
3. poor living conditions and financial reward.

A comparison of the two Service studies indicates that the Canadian Service dentist views the priorities differently. Treatment practice and policy is not a problem, whereas treatment facilities are the major area of his concern.

Well trained and professionally motivated dentists who have received financial assistance during undergraduate years join the Service organization for a fixed time commitment. These younger men react predictably to organizational or Service constraints, and if studies of civilian professionals in organizations can be accepted then the Service may expect to lose up to 85% of these dentists at the end of the five-year commitment. Dental officer retirements in fact though approaching this percentage figure are at this point in time approximately 75%.

In summary, an attitude survey of the 174 Service dentists indicates that the Canadian Forces Dental Services function at a favourable level of job satisfaction with a striking similarity evident between the expected and the civilian norm.

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Dentistry at Sea

CAPTAIN E.T. DALZELL, CD, DDS.



The removal of HMCS Bonaventure and HMCS Cape Scott from active service also removed the only floating CFDS clinics and reduced our ability to practice dentistry at sea to zero. Therefore, when it was planned to send five ships to our northern waters for a six week period from mid-July to the end of August 1970, it became apparent that dental services would be an important requirement. The Commanding Officer of HMCS Protecteur, the capital ship of the flotilla requested interim arrangements for the provision of treatment during this isolated cruise. Consequently the problem was solved by the installation of a mobile clinic in the helicopter hangar of Protecteur.

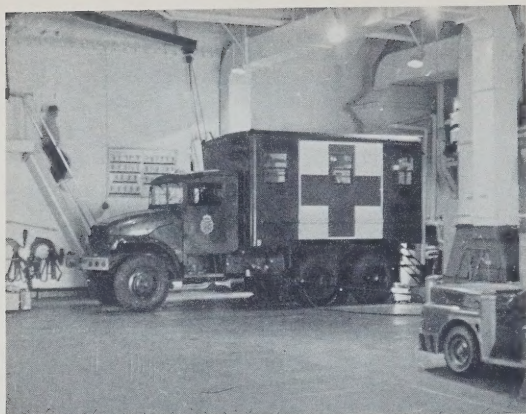
The Commanding Officer of 12 Dental Unit was faced with the problem of staffing the clinic. My fifteen years of naval experience and an expressed regret that I couldn't now serve at sea on HMCS Bonaventure found me, three months after graduation, going back to sea again in a somewhat different capacity but nevertheless, back on the good old North Atlantic.

Needless to say I was somewhat apprehensive that July day as the ships left Halifax harbour for the first leg of the cruise to Churchill on Hudson's Bay. I liked the idea of running my own clinic but was a little uneasy when I thought about my inexperience, the tales I had heard about the condition of Eskimo dentitions, the isolation of my little world from a colleague's comforting advice, not to mention the 1,500 or so men of six companies who would be my responsibility for the next six weeks.

The formulation of a plan to tackle the dental problems during the cruise were subject to certain conditions and limitations. There being no laboratory facilities, prosthodontics and the more complicated operative procedures like crown

and bridge were out of the question; therefore, the practice on Protecteur was confined to what one might call the "bread and butter" of the profession, namely amalgam and silicate restorations with a lot of extraction cases to add variation. Work on members from the other ships of the group consisted mostly of the relief of pain. Where and when these cases could be treated depended on availability of helicopters to fly these patients to Protecteur or when our ships were together in the various communities we visited, or during refuelling of the ships. They being destroyer escorts, their fuel needs were such that approximately once every eight days they'd come along side at sea for fuel and dental casualties were sent across on the jackstay transfer. A rather perilous procedure if the sea was running a little high, to swing across 20 yards of cold ocean at the end of a rope - more than one toothache was miraculously cured! Treatment consisted of routine work on Protecteur's ship's company which was interrupted while in ports of call to offer services to any people at these outposts who had dental problems.

Children's parties were the social highlights of this cruise and in each little settlement or outpost we were inundated with children, many of whom had never seen a dentist in many months or years. The dental van being in the hangar, was right in the midst of these boisterous parties and the dental officer was accused of having reached down from his doorway and snatched or otherwise lured more than one luckless Eskimo child to spend some time in his chair, but it was their day; no self-respecting dentist wanted to spoil it for them. Incidentally, the side of the van was used as the backdrop for a bean-

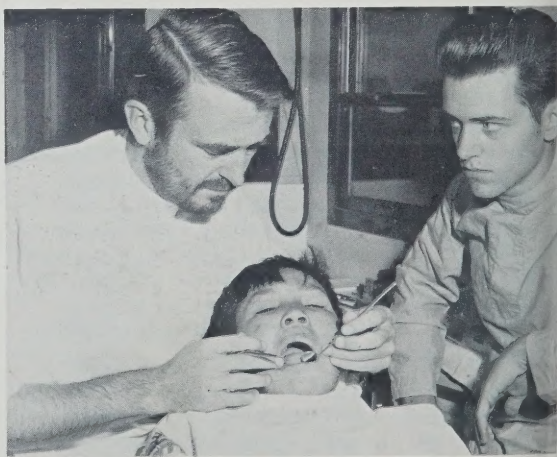


bag throwing contest on these occasions anyway, so any dentistry was out of the question as the van rocked and resounded to a continual bombardment. Eskimo children, perhaps more so than their cousins to the south, possess a consuming desire for candy, cookies and pop, and it was amusing, though somewhat disturbing, to see them leaving those parties with their mouths, pockets, jackets and even parka hoods stuffed with all sorts of cavity producing delights.

At other times while in these communities, the outpost nurse would send some patients out to the ship who she was unable to treat. Needless to say, little restorative dentistry was done for these unfortunate people. Treatment usually consisted of extractions often requiring flap procedures to remove abscessed roots, these being all that remained when the patient presented. Of the patients treated, one in particular comes to mind. He was an eleven year old Eskimo boy scout, one of a group who were taking passage with us from Coral Harbour to Frobisher Bay. I noticed him regarding me pensively the first day and then the second day he appeared at the clinic door. "Are you the dentist doc? Will you fix my teeth?" As I knew we'd be in Frobisher Bay the following day I cancelled some appointments and seated him there and then. He knew what a toothbrush was and fortunately did not require any extractions, so, somewhat heartened by his better than normal condition, at this obvious interest in his own dental health, I restored six maxillary teeth that morning and told him to return in the afternoon. I thought he might be reluctant for a return engagement but there he was waiting for me as

bright as a button on my return from lunch. We then proceeded with a double mandibular block, five or six restorations including a pin amalgam and two hours later he and I went down to the ship's canteen for a toothbrush and toothpaste. Tommy Patterk made my day.

Upon the ship's return to Halifax at the end of August, it was obvious that a dental clinic was still required on *Protecteur*, as the dental treatment was far from completion. Plans for a permanent clinic to be installed were still in the embryonic stages and the continued presence of the mobile clinic would help to keep the talk rolling and justify the requirement of a permanent sea-going clinic. During the northern cruise, plans and a survey of the dental treatment requirements were submitted as justification for a clinic afloat. It is interesting to note that in a ship's company of 225 men, there were approximately 150 teeth requiring extraction and a further 1,300 cavities requiring restoration, not to mention the prosthetic requirement. This state of affairs exists mainly because the average sailor is required to spend many of his years of service actually at sea. When he comes home, the last place he thinks of going, until it's too late, is the dental office. He has leave to take, courses to complete and then he's off to sea again. The medical assistant on his ship will administer an antibiotic and some analgesic to tide him over if a dental emergency occurs at sea. Therefore, the logical approach to this prob-



Capt Dalzell and Pte Bowering with Eskimo patient.

lem is obviously, permanent clinics on the two or three larger ships of the fleet. Even though, it is no easy matter to instal such a clinic in a ship which has not been originally designed to include one. It is hoped that a permanent clinic will be installed in HMCS Protecteur. If any young dentist aspires to the luxury of running his own clinic and enjoying the pleasures of seeing the world at government expense, not to mention many other little advantages which are to be had, then he should apply. Even if you get seasick, no one will mind because if the sea is that rough it's too rough to work anyway, so you close up the clinic for that day and wait till your stomach and the sea calm down.

It seems to be a general misconception that much time is lost practicing dentistry at sea due to rough weather. During the nine months served at sea the clinic was closed a total of four or five days. Perhaps there were a few times when it might have been wiser to have closed up shop earlier. Two incidents come to mind that, in retrospect, are rather amusing. The first occurred on the trip to England. The ship was rolling a lot and I was sitting at chair-side administering a mandibular block on an unfortunate patient. My chair had rollers and decided to take a trip out of the van and down the steps as the

ship lurched unduly. I never withdrew a needle quite so fast before or since! The second incident occurred on a cruise to Boston last fall and involved my assistant, who shall remain anonymous to save possible embarrassment to the poor individual. After completing work on a patient I turned rather impatiently to my assistant to inquire why he had not assisted in his usual manner, he having got up from his stool four or five times without explanation. He kept going to the sink to wash instruments, or so I assumed. Actually he was very successfully and quietly getting rid of his breakfast and when I took a good look at him, probably his previous evening's supper too. I gave him the rest of the day off and full marks for being so quiet that he did not disturb the decorum of the clinic.

All good things must come to an end, so following a six-weeks cruise in January and February, I relinquished my position to Capt Ed Graham, another aspiring sailor. Incidentally, just to make you golfers green with envy, that last six weeks were spent in the Caribbean during the annual Maple Spring Exercise at the US Naval Dental Clinic in Roosevelt Roads, Puerto Rico. It was indeed a fitting climax to an exciting nine months and full recompense for the previous summer spent in the Arctic.

MACKENZIE MOUNTAINS:

Therapy for a Dentist

MAJOR H. A. PANKRATZ, DMD.

Last September I hunted for two weeks in the MacKenzie Mountains of the Northwest Territories. Zone 19 of the MacKenzie Mountains is one of the very few remaining pure wilderness areas in the Great Northwest. No roads penetrate there. No railways cut the mountain-sides. No airstrips exist. The only way man has ever travelled there is on foot, on horseback or by floatplane. The unspoiled natural beauty of the mount-



ains is breathtaking, and big game abounds.

Although the dream of hunting in the

north has been with me for many years, I always considered it to be something that other hunters did. Last summer, however, as my wife and I were sitting quietly watching a T.V. documentary on mountain sheep, she must have seen an especially longing look on my face. Suddenly she said, "Why don't you go?" After establishing that she was serious, it took only a day or so to begin the necessary arrangements.

Due to the utter wilderness of the terrain, the Government of the Territories requires that all hunters be accompanied by licensed guides and outfitters. Fortunately these services were offered by an outfitter whose headquarters is actually in Cold Lake, Alberta. On 15 September I flew via commercial air to Norman Wells. There the outfitter was waiting with his float plane for the flight to base camp on Palmer Lake in the MacKenzie Mountains. Even before my equipment was stowed in the tent, schools of Dolly Varden trout could be seen investigating the floats of the airplane. In the next fifteen minutes, fishing from the shore, I soon discovered that it was almost impossible to bring a lure back to shore without a fighting two or three pounder on it. A half hour later these most delicious fish provided the first dinner in the mountains.

The next day was spent riding, with guide and horse, walking and glassing mountainsides for signs of a trophy Dall Ram. We saw several groups of sheep but each time, often climbing to within good observation range, no large trophies were found among them. With darkness less than an hour away, we started back to the base camp. On our way, within a mile of camp, we discovered a large bull moose following the river bed in the direction of camp. After dismounting, having a closer look and deciding that he was indeed a worthwhile trophy, I ran on a line that would intercept that of the moose. Approaching to within 300 yards, I took a steady rest and put him down with one shot from my 300 Winchester. It was well after dark when my guide and I arrived back in camp after having dressed out the moose and prepared it for removal the next day. It took us almost all of the next day to cape out the trophy and bring out the meat.

The following morning just at dawn the



Freddie the Guide and General Bullmoose with the author/hunter/dentist

camp was awakened by the yelping and barking of the camp dog. Taking a look out of the tent flap and seeing nothing, it took only minutes to get dressed to investigate. Slowly walking toward the horse corrals I finally saw a grey form moving through the trees towards me.

A few seconds later it became shockingly clear that the grey form was in fact a large wolf and he was coming slowly and deliberately down the path on which I stood. It stopped briefly at approximately 25 yards and the shot from my rifle killed the wolf but awakened everyone in camp. Later we established that this wolf had lost three canine teeth and had probably found an easy way to exist by eating the garbage from the cook tent.

After breakfast while everyone was admiring my wolf, my guide was busy glassing the mountains. Suddenly he said, "There's a b'ar!" Soon everyone had scrambled for their binoculars and spotting scopes and indeed there was a large grizzly working the tundra above the treeline, about four miles away. It took only moments to saddle up and be on our way. We rode to within a mile or so out of sight of the bear and continued on foot. We climbed to the bear's estimated elevation when last seen and slowly started around the mountain to see if we could find him again. On this stalk we had a retinue of interested followers: one guide, two photographers and the outfitter himself. Finally we were brought up short by a deep gorge across our path but then someone spotted the



The bear facts

bear about 400 yards away across the gorge. The photographers got cameras rolling and simultaneously the grizzly became aware of us, stood ten feet tall for an instant and quickly left for parts unknown. On his speedy journey, however, he discovered that he couldn't outrun the 300 Winchester. My shot travelled just to one side parallel with his spine and killed him quickly. With so much help, he was quickly skinned and his head and hide carried down the mountain to the horses.

There are five big game animals available in the MacKenzie Mountains and in three days I had had the incredible good luck to collect three of them. The next few days were spent in a spike camp some ten miles from the main camp. We hunted the prized and elusive Dall Ram every day without success although several medium sized rams were passed up. Finally we moved another ten miles down river and set up another spike camp. The first morning after the move four large rams were spotted about four miles away just above the tree line. It was decided to hunt them on foot. After crossing the river on horseback we were on a long climb to the area in which the rams were seen. It was found that some leg exercises in the summer really paid off because after climbing rather steadily for

three and a half hours I was still keen and full of energy. A slow deliberate search of the area above the tree line finally paid off and the rams were spotted in a draw above us. We stalked them carefully by circling wide to the downwind side and approaching to within 150 yards. In this group there were now two other hunters; surgeons from Montana. The guide showed us individually which ram we were to try for and we all got up and fired together. My ram and one other dropped immediately, the third one dropped about fifty yards further up the mountain. To our great delight all three of the rams measured over 37 inches on the curl. My own is broomed off evenly on both sides and still measures 39 inches.

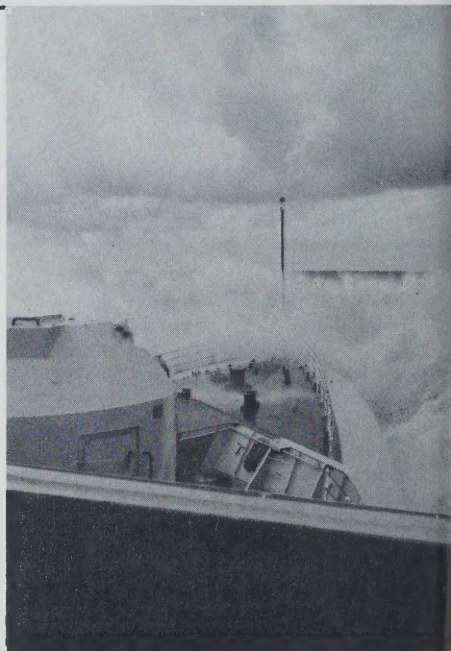
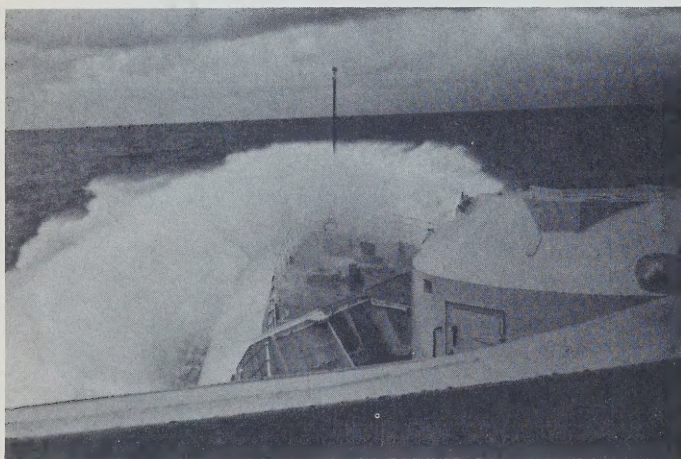
It was full dark when we got back to the spike camp to sheep steaks and bannock dinner. The following day we made the same climb again, this time leading horses to bring out the trophies and meat.

It took three days to return to base camp with the heavily laden horses but our spirits were very high. After a few days rest, spent fishing and photographing, we flew to another small lake to find caribou. It was three days before we saw any. However, when we did,

there were some excellent trophies to choose from. I shot a fairly large bull after stalking him carefully for hours to within 200 yards when it could be confirmed that he had very beautiful symmetrical antlers and also had perfect "double shovel" brow tines. The load of meat and antlers that the little float-plane carried back to base camp was exceedingly difficult to get airborne but our outfitter showed us what it takes to be a really accomplished bush pilot.

The next few days were spent in looking after trophies, hides and meat. Much of the meat formed the greatest part of our diet for two weeks and the remainder was flown to the Indian Reservation at Ross River, Yukon, where it was gratefully received and consumed.

Never have I had more strenuous exercise and pure relaxation packed into one two-week period. I heartily recommend it as therapy for overworked dentists and for any ardent hunter.



Operation HAWAII

MASTER CORPORAL H. J. MacGILLIVARY

In July 1971 the Commanding Officer of HMCS Columbia requested dental services on a training cruise to Hawaii. The dental team would have the primary role of carrying out preventive dentistry aboard Columbia and HMCS St Croix, a sister ship which accompanied Columbia on the cruise.

Personnel selected were Major JF Eadon, a sailor at heart, and Master Corporal HJ MacGillivary, who was still wondering what the world looks like on water ten miles from shore.

Since this was an initial trial exercise for dental services on a destroyer, a decision had to be made regarding the working area and equipment. After a

brief deliberation it became apparent that the ship's sick bay was the only accommodation available. Although the primary task was preventive dentistry, the duration of the ships cruise did not justify the dental exercise ending there. Modified equipment was taken on board so that routine treatment could also be provided.

This equipment included a pump chair, an aspirator, an air-torque machine, a slow speed dental engine and a dental cabinet. (All the luxuries of home base.) The ship's engineers did an excellent job of securing the equipment and we soon found out the importance of its' being secure.

Living accommodation for the dental team was adequate. Major Eadon was given a berth with a fellow officer and MCpl MacGillivray was given quarters in a mess about midship; it was favourably located and became a place of refuge during the quicker motions of the ship.

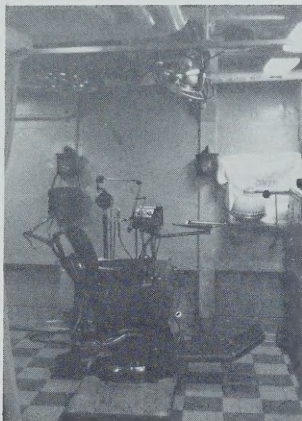
The Columbia slipped its moorings at 1100 hours, 26 July. In the next thirty days we would travel to Hawaii, spend a few days in port, leave port for a week, training around the Hawaiian Islands, sail into port again for four days and then return to Victoria. We started the preventive dentistry program as soon as we cleared harbour. The ship's company were most cooperative and the next three days were spent entirely on Phase I treatment. The system used was the self-preparation technique, with groups of six reporting every half-hour. Due to ship's routine and our particular location, treatment could not be started before 1000 hours.

On completion of the program, patients requiring immediate extractions and fillings were looked after first. Patients not suitable for treatment at sea were appointed for treatment at Naden. Gradually routine work was carried on and since the last three days to Hawaii were smooth sailing, dentistry at sea became almost normal. The first few days out of harbour were rough for attempting dental treatment. The ship seemed to jump around a great deal more near the coast; also there are what is called "sea legs" which one is supposed to acquire after a couple of days at sea. Regretfully the assistant of this dental team had troubles in this respect. He did the next best thing - made sure the "heads" were near in case of an accident.

Although the dental equipment generally worked well, there were a few kinks to be straightened out. The compressed air bottle supplying the Mid-West unit was not only inadequate but it could not be refilled on the ship. The ship's engineers helped out again by supplying a diver's tank. A very satisfactory arrangement because it held three times

as much air and could be refilled on board.

After eight days, Hawaii was certainly a welcome sight. The ship docked around 1030 hours and all was going well for about ten minutes when personnel from the St Croix descended upon us with stored-up dental ailments. After this was straightened out, it did not take much coaxing to make use of shore leave for the rest of the day. The next three mornings were spent providing preventive dentistry to the available personnel of the St Croix.



Shore leave was spent in Hawaii and was most rewarding. Major Eadon availed himself the opportunity of sailing in Hawaiian waters and from observations, thoroughly enjoyed himself. MCpl MacGillivray had had enough of the water and turned his attentions to the land. There are some really picturesque places on the Islands. The terrain is very rugged in some areas since the origin of the Islands is by volcanic activity.

So it came time to leave port again and the next seven days were spent on an exercise around the Islands. The sailing was very smooth and most of the routine work was accomplished during this time. In the evenings just going up top on deck was a real treat. At that time of year, the burning of the cane fields and harvesting of the pineapples was in progress. Since we were close to shore we could see the cane burning and the air was fragrant with the odors of sugar cane and pineapples. The highlight of the exercise around the Hawaiian Islands had to be viewing the monument to Captain Cook. It was nestled in a small quaint cove which we reached after following a picturesque headland. As we viewed the spot, there was a feeling (as in many other places on the Islands), that the particular spot was holding back a secret. Also, for some reason, time seems to stand still.

The seven days soon passed and it was back into port for four more days. During this stay in port a new development arose. One of the crew was confined to sick bay and because he required quiet

as well as rest, dental work was out of the question. What was suspected all along became evident - the requirement for a separate area independent of the sick bay.

Valuable assistance in the way of supplies and laboratory work was rendered by the US Navy dental personnel on base in Hawaii.

The return cruise to Victoria started out fine but turned sour the first day and remained so for several days. The ship's crew said it was nothing but this opinion was not shared unanimously. The medical patient improved enough so that routine dental treatment did not bother him. Because the sea was a little rougher, treatment was carried out at a much slower rate. All this time Major Eadon made use of his spare time learning the finer points of navigation and actually became somewhat proficient at taking star fixes. Meanwhile, MCpl Mac-Gillivray took time to explore the ship entirely and get a better understanding of radar, radio, at sea. The second

last day the Columbia gave her sister ship, the St Croix, something to think about. Apparently every officer on board has a pennant which is hoisted when that officer assumes control of the ship. In recognition of Major Eadon's efforts, he was given control of the ship for an hour. Ordinarily, hoisting a pennant for a dental officer would present a problem. However, Major Eadon's pennant was someone's personal creation.

Vancouver Island was in sight as morning dawned on the last day and it was comforting to have land in view once again. It might be said that the exercise was a success. However, it could have been improved with separate working facilities for the clinic. Also, in a ship the size of a destroyer, it does not have to be all that rough to warrant stoppage of work. Probably the strongest argument for dental treatment aboard is the cooperation of the ship's crew in this environment. Off the ship, a great many of them neglect their dental requirements while for a large number there seems to be no time to go on dental parade.

Auntie Plaque Caries On

Boys, let's keep those bugs at bay,
And do it the preventive way.
Brush on the topical fluoride,
It helps to make tough tooth-hide.
Mais qui, vive la fluoride,
Il fait les dents solides!

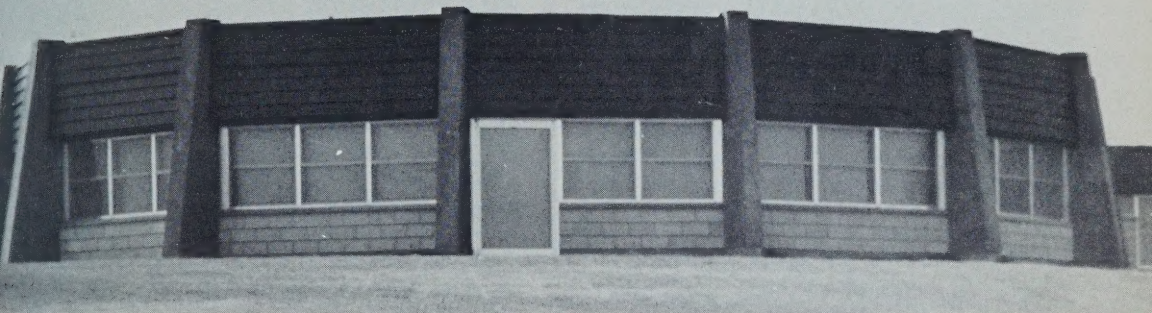
Rise, Fluoride, rise!
Time and effort improvise.
Between the teeth it really works,
Right where the streptococcus lurks.
It gets into the interproximal,
And really drives the bugs 'n' all.

Nous aurons les dents fortes -
Encore, après notre mort!
But with all those bugs around,
Decay there will be found.
Some teeth will have to be filled,
'Cause da fissure bugs were not killed.

Hoorah! la Fluoride, c'est si capable,
Et les bacteries sont les miserables!

Dentistry in the round

Lieutenant-Colonel John McCrae Building



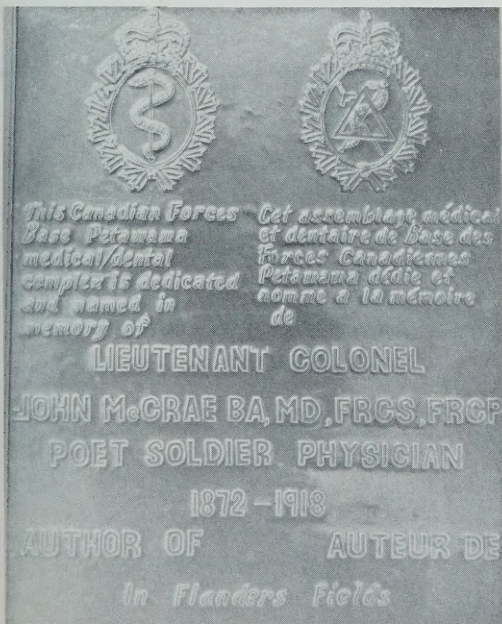
by Major G.R. Nye, BSc, DDS.

The official opening of the new medical and dental facilities at CFB Petawawa took place in conjunction with the CFB Petawawa observance of Remembrance Day, 11 November. The building was named in memory of Lieutenant-Colonel John McCrae, the author of "In Flanders Fields", written at Ypres in 1915.

Many distinguished guests were present to open the \$1.1 million building. Mr. Len Hopkins, MP for Renfrew, representing the Minister of National Defence, cut the ribbon. Mr. McIlraith of Guelph Ontario, president of the LCol John McCrae Birth Place Society, unveiled the memorial plaque. Senior military personnel present were MGen AC Hull, Commander of Air Transport Command, BGen Garth C Evans, DGDS, BGen Leach, Deputy Surgeon General, Col WR Thompson, CO 13 Dental Unit, Col DS Nicholson, Acting Base Commander and LCol GE Windsor, Base Dental Officer and LCol JK Edwards, Base Surgeon.

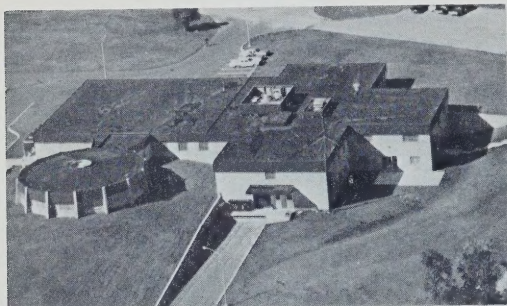
Mr Hopkins read a letter from the Minister of National Defence which expressed the view that the modern facilities and equipment would help to ensure that a high quality of health services would continue to be provided at Base Petawawa. He pointed out that LCol John McCrae once served here.

The McCrae building is a major improvement over the old temporary building and converted H-Hut which housed the dental clinic. The CFDS has increased its operating capacity to provide nine dental surgeries for seven dental officers and two therapists. The dental laboratory has been outfitted with new



equipment and has a working area for three technicians.

One of the interesting features of the circular design is that all the dental surgeries and the dental laboratory receive natural light through the windows on the outside wall.



The inner core of the clinic contains a reception area, centrally located to receive and control patient flow; also in the centre area are stores, X-ray facilities, a dark room and a dental assistant work area. The compactness of design contributes to a neat military appearance and the ease of maintenance provides a proper professional environment.

The new clinic has attracted a great amount of local attention and the general public were complimentary during their visit following the opening ceremonies. Receptions and tours of the clinic have also been arranged for the Renfrew County dentists and their assistants.

The long term projections for the Canadian Forces indicate that CFB Petawawa will continue to be a major base. The new clinic provides better facilities to maintain and expand dental services to the 3,700 servicemen on the base.

MAJOR-GENERAL ROBERT B. SHIRA RETIRES

The Chief of the U.S. Army Dental Corps and Assistant Surgeon General, Major General Robert B. Shira, DC, retired on 30 November. In attendance at his retirement party in Washington D.C. and representing the CFDS were BGen and

Mrs Garth C Evans, Col and Mrs JW Turner, Col and Mrs WR Thompson and LCol and Mrs JC Brick.



A presentation of the Eskimo carving pictured on the cover of this issue was made to General and Mrs Shira on behalf of the members of the CFDS and the plaque pictured below was presented to the general.



In a letter of appreciation to BGen Evans, General Shira expressed his appreciation to all members of the CFDS for the gifts and stated: "There has always been a close tie between the Dental Corps of our two countries and this gesture on your part certainly cements these ties ... and demonstrated to [our officers] the importance of the continued cooperation between our countries."

and bought another snowmobile - for Mrs Yates ... The "Brush-Ins", a dental team entered in the Base Trenton mixed bowling league, is presently in second place. The team is comprised of MWO RF Matheson, MWO VR Kidd and Sgt NL Highfield with their wives Bunny, Eleanor and Judy and civilian assistant Joan Macklin and her partner John McCrae.

Hitched

MCpl GE Sykes kicked over the traces once too often. He left the bachelor ranks for double harness on 19 December when he married Miss Jo-Ann Stephanie Clark, who was among a group of North Bay dental assistants attending a lecture by the Base Dental Officer in the base dental clinic. The base hospital and dental staffs combined to give the groom a spirited send-off. Cupid works in the strangest places.

Retirement

Major CJ Sivell retired in December after nearly 27 years service but he's not leaving us entirely. In January he will be going to Germany to take charge of a dependants' clinic for CANEX. The dental staff honoured him with a farewell party at the Gasthaus Schroeder after which everyone returned to the WOs and Sgts Mess with the medical staff joining in to wish Major Sivell good luck. The clinic staff presented him with a plaque on which was mounted a gold golf tee (for the man who has everything). On 26 November, BGen Evans and Col Thompson presented Major Sivell with retirement gifts on behalf of the CFDS and 13 Dental Unit.

Double Handshake



Col WR Thompson presented Pte H Snutch with both the Canadian Forces Decoration and the first clasp at the same time. Pte Snutch will commence terminal leave in May 1972 after a career which began in October 1939 with the Victoria Rifles of Canada, through the Second World War in England, Italy and Northwest Europe. He left the Service in 1945 but re-enlisted with the Canadian Intelligence Corps in May 1951, going to Germany with HQ 27 Canadian Infantry Brigade. In 1953 he transferred to the RCDC, married in Germany and returned to Canada in 1956. His postings have been to Montreal, Ottawa, Petawawa and Trenton.



THIRTY-FIVE FIELD DENTAL UNIT

by Sergeant W.B. Looker

Visits

LCol JVP Chatwin, Maj HS Wood and WO King, from Ottawa, paid a one-week visit to CFE during November. The group gave two presentations on the preventive dentistry program at Lahr and Baden.

Sports

Capt Bill Gray skipped a team in a curling competition to pick the team to represent Baden in the Zone 9 finals. Unfortunately the crew met with defeat ... Sgt Bev Gilkes, a member of the Lahr 100-Mile Club, was recently presented with her first 100-mile medal. Bev has also picked up three medals for walking events sponsored by various German communities in the Black Forest area ... Capt Bill Gray, Capt Dan Morrow and Dr Dalton Deedrick have taken to the slopes of the Black Forest, but we've had more rain than snow so water wings have been added to their skiing outfits ... Cpl Fern Audet is off this month on a scuba diving expedition to the Mediterranean.

FOURTEEN DENTAL UNIT

by Mrs M. Dykes

The Long, the Short and the Tall

Sgt AW Hussey received a certificate from the United Way Campaign of Greater Winnipeg for his canvassing efforts and for greatly exceeding his objective ... Capt HV Ferber has been appointed editor of the Manitoba Dental Association Bulletin ... Major MN Deyette, PCO/DENT, paid a visit to 14 Dental Unit detachments at Cold Lake, Edmonton and Winnipeg. Personnel were delighted with this opportunity of "getting the word" from "God" ... LCol PS Sills, while attending a Training Command conference in Winnipeg, in

October, presented a very interesting lecture to the CFB Winnipeg Dental Officer Study Club. The lecture was attended by all Winnipeg-based dental officers as well as by Capt Psaila (Portage la Prairie), Capt Burns (Shilo) and Capt Hawkins (Gypsumville) ... Maj IW Susser lectured on the preventive dentistry program to the fourth year dental students at the University of Manitoba in November ... Capt Hawkins has been elected messing officer for the CFS Gypsumville Officers' Mess and treasurer of the Northern Interlake Curling Club ... After helping at the traditional Christmas dinner at CFB Moose Jaw, Maj Gullekson returned to his car to find an unsolicited Christmas gift - a parking ticket. Good will toward men?? ... Duck hunters and outdoorsmen please note - if you're looking for lots of outdoor activities and an elegant working environment, be sure to get your name down for CFS Alsask. According to Capt RCA Fearon and Cpl CF Baldwin, the clinic is air-conditioned, has piped-in music and headset speakers available on the dental chair for use by patients and has recently been redecorated ... Sgt HE Ayerst has recently returned to CFB Edmonton following his tour of duty in Cyprus. He noted a vast change in the weather ... Cpts TA Rawlyck and DL Brown, both of Moose Jaw, clocked 9-3/4 and 10 minutes respectively on the mile-and-a-half physical fitness run. Are these new records for the CFDS? ... Capt PP Psaila is now the assistant group committee chairman for the Cubs and Scouts at Portage la Prairie.

Lost and Found

Cpts Boulanger, Milne and Rix of the dental detachment at CFB Cold Lake undertook a hunting trip to Nordegg, Alberta. One of those hunting stories accompanied their return. Capt Boulanger dropped a superb bull elk in the woods. He realized how deep only after coming out to obtain the assistance of his partners for recovery action. Consequently the efforts to locate the prize trophy on the return trip were futile. The animal, together with Capt Boulanger's rifle and red hunting jacket which he had left alongside the animal, could not be found. Fortunately, with the help of a plane, packhorse and a guide, the lost trophy, rifle and jacket were recovered the following weekend. The bears had made sure that

the meat would not spoil - only the elk's head was found.

Winter Works Program



Four civilian dental assistants are being employed at the dental detachment at Cold Lake from 1 December to 31 March. A critical shortage of dental assistants prompted LCol JJN Wright to investigate the possibility of obtaining additional personnel through the Winter Works program. This endeavour led to the hiring of Mrs Marsha Chapman, Miss Barbara Croswell, Mrs Dorothy Babin and Mrs Mary Slaght.

The dental detachment at CFS Alask also benefited from the Winter Works program and are happy to have another dental assistant, Miss Carol Robertson.

TWELVE DENTAL UNIT

by Lieutenant D.E. Fraser

Visits

On 15 December, the Summerside dental detachment hosted twelve aspiring dental assistants from Holland College in Charlottetown. A workshop was presented concerning the every day responsibilities of the dental assistant, laboratory demonstrations, chairside techniques, equipment maintenance and an outline of the CFDS preventive dentistry program at the clinic level. The formal dental assistant program at Holland College is the first of its kind in Prince

Edward Island ... MWO Tanner went to CFHQ as the first dental tradesman to sit on a Cpl to Sgt promotion board ... BGen Garth C Evans visited the unit in November and was entertained by the CFDS officers and wives of the Halifax-Dartmouth area at a cocktail party. Special guests were BGen and Mrs BP Kearney and Col and Mrs AT Roger, both from Dalhousie University dental faculty ... On 2 November BGen Evans and Col SG Bagnall flew to CFS Bermuda to inspect the new dental clinic there. They were met in Bermuda by LCol and Mrs TJ Cobb and Sgt Mac Allen. Upon his return from Bermuda Col Bagnall set up a waiting list for all those officers requesting a posting to 12 Dental Unit. Rapid calculation reveals that it will take about 90 years for all CFDS officers to get a TD trip to Bermuda ... Capt Wayne Bowness, MWO Colin Adams and MWO Chorney were welcome visitors to 12 Dental Unit during the latter part of November and first part of December. They are employed in postings and careers at CFHQ and were able to answer many questions by personnel of this unit.

Newfoundland Dental Society Convention

Major NH Andrews received a request to be guest clinician in St John's 28 to 30 October. This was a pleasant task in that Maj Andrews is always anxious to spread the work in his dental specialty and in this case it was an opportunity to speak to his confereres in his hometown. He spoke on periodontal therapy. Col Bagnall and Capt EW Graham attended the lectures.

Training

Maj NH Andrews accompanied Drs DG Pentz and EJ Hannigan of the Faculty of Dentistry, Dalhousie University to Moncton 4 December to give a one-day continuing education course in periodontics ... LCol AG Andrews has been spreading the word on oral surgery to some detachments in 12 Dental Unit. The dental officers have been making lists of interesting surgical cases and LCol (have forceps - will travel) Andrews puts on demonstrations and lecture/discussions. His recent visit to CFB Gagetown was well received by clinic personnel.

Items of Interest

CFDS personnel have cornered the market in Cubs and Scouts in Beaverbank.

WO RD Veinot is president, MCpl GW Porteous is treasurer of the group committee and Sgt DS Smith is an assistant cub-master ... On 17 December 12 Dental Unit kicked off the festive season in good style. On this occasion the members of the unit in the Halifax area gathered in the Windsor Park Curling Club to enjoy a sit-down dinner and an evening of dancing, friendly chatter and laughter. Upon hearing that the first dance was a spot dance, Col Bagnall reserved the dance floor and he and Mrs Bagnall proceeded to win the first prize.

Sports



Sgt Ken MacDonald, coach of the CFB Cornwallis Flag football team received the Zone 7/8 championship trophy from Capt (N) HR Tilley, base commander. The Cornwallis team defeated CFB Shearwater 9-6 in the final game.

Three local deer hunters were fortunate during the annual deer season. Sgt Hans Kalmet shot a 10-point buck in the Cornwallis area; Lt Dan Fraser bagged an 8-point buck in the Shubenacadie area (not in the Wild Life Park) and MWO Harold Kirby got a doe in the Annapolis Valley.

10th BONSPIEL CFB Borden 3 & 4 MARCH

ONE DENTAL UNIT

by Master Warrant Officer EE McFadden, CD

Preventive Dentistry

LCol JVP Chatwin and WO King travelled to England in October to present the preventive dentistry program to British forces. They visited the British Army Dental Training Establishment at Aldershot, the Royal Naval Dental Training Establishment at Portsmouth and the Royal Air Force Dental Training Establishment at Halton, speaking to about forty dentists and hygienists at each location.

Retirement

Completing a second career with the Service, Dr CFB Grant retired 1 January to embark on still another career, this time as a civilian practitioner in Ottawa. A farewell party was held at CFB Uplands.

Ye Olde Christmas Party

This year 1 Dental Unit held a Christmas party at the Beach Building in Ottawa with wives and friends attending. Long dresses, spot prizes, an excellent meal and seasons greetings extended by BGen Garth C Evans made for an excellent unit gathering.

DENTAL SERVICES CFHQ

BGen Garth C Evans attended the opening of the LCol John McCrae Medical/Dental Building at CFB Petawawa on 11 November. He also visited CFB North Bay, CFB Toronto, Washington and Bermuda ... LCol JW Fletcher was off on duty to CFB Petawawa and CFB St Hubert ... Col JW Turner was at Ann Arbor, Michigan and Maj HS Wood visited CFB Europe ... BGen Evans and Col Turner attended academy meetings in Toronto during December ... LCol John Brick was at CFDSS in January ... Maj MN Deyette visited 14 and 15 Dental Units and CFDSS during this period.

CYPAUS DENTAL DET.

Update

Sgt PJ Mehler returned to Canada 27 October and was replaced by Sgt RB Innis ... Sgt Heather has shown a flair for carpentry. He has made several chairs for his quarters and an open air solarium behind the clinic.

FIFTEEN DENTAL UNIT

by Sergeant J.R. Joly, CD

Annual Christmas Party



The annual Christmas party was held in the Social Centre, St Hubert Garrison on 9 December. More than sixty 15 Dental Unit members/wives/girl friends took part in the festivities - some from as far away as CFB Valcartier. The CO carved in accordance with unit tradition and is seen attempting to strip the last morsel from the turkey while Major Bernie Houde (centre) exudes the Christmas spirit.

Convention

Majs Joubert and Nadeau, Cpts Lepage, Gagnon, Roy and Lemieux attended the Montreal Fall Clinic in November.

Sports



Capt Lemieux (left) won the singles in the Zone 6 tennis championships held at CFB Valcartier 16-17 September and was joined by Capt St Louis to win the doubles.

Capt Gagnon has tied for first place at CFB St Jean in running 100 miles in one month.

ELEVEN DENTAL UNIT

by Sergeant R.S. Walker, CD

Dentistry at Sea

LCol Hap Protheroe and his preventive dentistry team have been busy performing Phase I treatment aboard ship. The ships COs have really appreciated this service and HMCS Qu'Appelle was out to sea when her crew were being done. LCol Protheroe and his two female assistants enjoyed this change of environment.

Farewell

The staff of the Chilliwack detachment augmented by LCol Norm Butcher and Capt Dave Brown had a small but very enjoyable dinner for Edith Whebell, who has terminated her employment with the CPDS and taken a position at DVA Shaughnessy Hospital in Vancouver.

Sports

Maj Justin McNeill has been appointed president of the base scuba diving club ... Sgt Dick Walker participated in the Navy Association golf turkey shoot in early December where he won an 18-lb bird for Christmas dinner ... While on annual leave in Kamloops in November, Capt Paul Arnold and Cpl Pete Hansen found the moose hunting excellent and bagged a 400-lb animal. They were also blessed with some of our fine feathered friends. However, not everything was a bed of roses - Cpl Hansen, so says Capt Arnold, dumped over the canoe complete with guns, supplies and occupants. Needless to say, the water at this time of year is not exactly warm ... Cpl Hansen also has a deer in his freezer from the Comox area ... Cpl Breeze Spates spent his annual leave fishing up and down the Fraser Valley ... This unit is proposing to send strong representation to the upcoming bonspiel and there is a rink from "X" dental unit currently on "tour" and gaining experience, so look out, you eastern curlers!

CFOSS

by Warrant Officer PD Peterson

Visits

Col LG Craigie took time out of his busy schedule to visit CFB Cornwallis in November ... LCol PS Sills visited Training Command HQ in November and then travelled south to present a paper to the Greater Philadelphia Dental Society ... The dental public health class of the University of Toronto visited CFOSS 12 November to acquire a better understanding of how the preventive program in the CF is conducted ... Maj C Brown, responsible for dental training at TCHQ, visited the school 22-26 November ... Again this year the CFOSS had the pleasure of hosting the second year dental hygienists from the University of Toronto. The opportunity of exchanging ideas with therapists and

assistants in the CF has promoted deep respect by these students for CFDS training methods, competence and capabilities.

Posting

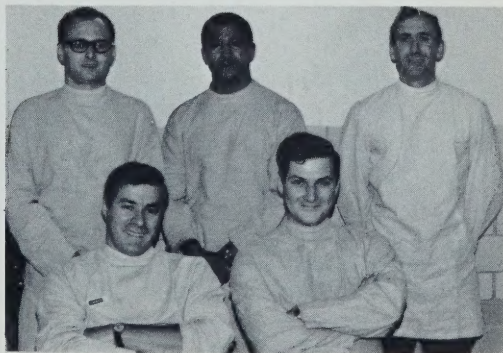
We welcome Lt RJ Kokotailo, a recent arrival from CFB Chilliwack. We feel certain his background in the Ordnance Corps will stand him in good stead in his new duties as CFDSS supply officer.

Backfire

Having experienced many years of miserable, cold, wet Novembers in Canada, Capt and Mrs WA MacInnis were determined to beat the elements for once. So with glad hearts they winged their way south to Antigua to soak up some sun. While they were away, CFB Borden chalked up one of the best weather records in years.

The End

Jubilation ran high in the CFDSS lab as the longest course the school conducts finally reached completion. We are of course referring to the PL4 Dent Lab Tech course which started 19 January and ended 26 November. As evidence the satisfied finalists who do not appear unhappy that it is all over.



Seated: Cpl Jacques Parent, Cpl Al Lambert. Standing: Cpl Lorne Overbye, Cpl Deon Allen and Cpl Bob Clarke.

New Look

Variety is the spice of life, or so they say. This term can certainly be applied to the Dental Assistant PL3 course conducted at CFDSS from September to November. Throughout the course a selected number of training periods were devoted to general military training. In this case the GMT was applied in the form of drill. Since integration, CFDS have employed land, sea and air element tradesmen, both male and female. We therefore found all elements and both sexes fairly represented on this course, resulting in some fairly interesting drill periods. However, the final result was well worth the effort as evidenced by the Graduation Parade performed by the course personnel and reviewed by Col LG Craigie, Commandant CFDSS. An additional boost to the parade was the fact that the top candidates of the course also filled the positions of platoon commander and platoon sergeant.



Col LG Craigie presenting Pte(A) RD Wade with his PL3 Dental Assistant graduation diploma.



Inspection of PL3 Dental Assistant Course by Col LG Craigie. (L to R). Pte(A) RD Wade, Pte(S) (W) PJ Lunney, Pte(A) (W) VR Pafford, Pte(A) (W) JA Hill.



The Commandant CFDSS addressing PL3 Dental Assistant course personnel on parade.

Crown & Bridge Pyroplast Construction

by MWO E.E. McFadden, CD
1 Dental Unit

The largest gathering of dental laboratory personnel, mostly of senior vintage, descended on the CFDS School in November to be instructed in crown and bridge pyroplast construction techniques by Mr KH Kempnich, Canadian representative, and Mr A Kelley, American representative, of the Williams Gold Refinery Co., Buffalo, N.Y. Not only pyroplast application was discussed but also new techniques such as guiding planes, removable partial design and common faults of RPD design. Talks on technician-dentist relationships were most beneficial to all. It was brought out in open discussion that it is most important that the dentist and labora-

tory technician work as a team and in so doing, the final results are high standards of work and happy patients.

A mess dinner was held as a highlight of the course with about 65 CFDS personnel representing all trades. Col LG Craigie pointed out that the CFDS has an enviable reputation of being the best school in the Canadian Forces and this reflects on each and everyone of us in the CFDS. After exchanging ideas and problems with the instructors and themselves, the laboratory technicians returned to their units with the feeling that their trade was progressing in ideas, material, techniques and recognition.



Left to right). Seated: CWO Bilbey, Mr Kempnich, MWO Goodwin, Col Craigie, Mr Kelley, WO Beauvais, Sgt Hope, MWO Lawrence. Standing: Sgt Hannah, WO Sprathoff, Sgt Black, O Davies, Sgt Ritchie, Sgt Dignard, Sgt Hardy, Sgt Cormie, MWO Kirby, WO Hughes, WO Christiansen, Sgt Larouche, Sgt Hill, WO Clarke, Sgt Tremblay, MWO Raymond, WO Todd, MWO McFadden. (Missing: Sgt Peterson).

WOs AND NCOs MESS DINNER

From time to time opportunities arise at CFDS to conduct events that are just not possible anywhere else throughout the CFDS. Such was the case in October when the school hosted a great number of senior NCOs on a variety of courses.

This time the special event took the form of a mess dinner, the first exclusively for CFDS personnel. Organized by CWO Jack Sadler, the dinner proved a tremendous success with a total of 65 CFDS personnel attending. Our hopes are that another dinner such as this can be organized in the near future.

Unaccustomed as I am posing for publicity pics at 3 a.m. ...



He said the bar is closing - but it's only 5

Somebody told me these senior NCOs could drink, but this is ridiculous!



And then there was the time

PROFESSIONAL TRAINING

U.S. ARMY INSTITUTE OF DENTAL RESEARCH, WASHINGTON, D.C.

Preventive Dentistry, 18 October

Capt JM Cherun

U.S. NAVAL DENTAL SCHOOL, BETHESDA, MARYLAND

Oral Surgery

Maj RJ Paturel
Capt PP Psaila

1 November - 17 December
15 - 19 November

UNIVERSITY OF MICHIGAN, ANN ARBOR, MICHIGAN

Crown and Bridge, 8 - 19 November

Maj AG Taylor

Endodontics, 29 November - 10 December

Col JW Turner

CANADIAN FORCES TRAINING

CANADIAN FORCES DENTAL SERVICES SCHOOL, CFB BORDEN

Crown and Bridge Pyroplast Construction, 18-22 October

MWO EE McFadden, Sgt RJ Tremblay, CWO HC Bilbey, Sgt BF Hannah, Sgt DH Hardy, WO DC Hughes, Sgt HC Petersen, MWO JE Raymond, WO JE Clarke, WO RE Todd, Sgt RS Black, Sgt JR Ritchie, MWO M Beauvais, Sgt JD Cormie, Sgt JP Dignard, Sgt LA Larouche, Lt FJ Reid, MWO KE Laurence, MWO RJ Goodwin, Sgt NJ Hope, MWO HC Kirby.

Dental Clinician Assistant PL6, 3 November - 2 December

Sgt B Hannay, Sgt JF Hill, Sgt DW Roy, MCpl D Frerichs, Cpl DT Langford, Cpl GG Carscadden, Cpl WJ Jenereaux, Sgt P Bosch, Sgt GG Albertson, Sgt JE Dale, Sgt A Jack, Sgt DS Smith, Sgt RA Garnhum, MCpl JC Doucet, MCpl JE Frechette.

CANADIAN FORCES LANGUAGE SCHOOL, CFB ST JEAN

Advanced English Training, 7 September - 23 December

Maj JJ Houde

French Language Training

Capt GP Greenacre
WO CS Brown
Cpl AD Hurley

9 August - 3 September
13 September - 17 December
13 September - 17 December

PUBLIC SERVICE COMMISSION LANGUAGE SCHOOL, MONTREAL

French Language Training

LCol G MacDougall

Phase 2, 18 October - 5 November
Phase 3, 19 November - 17 December

BANFF SCHOOL OF FINE ARTS

French Language Training

LCol JJN Wright

18 October - 5 November

3 - 21 January

CANADIAN FORCES STAFF COLLEGE, CFB TORONTO

Junior Staff Course

Lt RJ Hatcher

26 July - 10 October

Capt JJ Jacques

12 October - 17 December

CANADIAN FORCES SCHOOL OF MANAGEMENT, CFB MONTREAL

Senior Officers Management Symposium, 7 - 17 December

Col WR Thompson

Advanced Management, 8 - 26 November

Maj DH Charles

Middle Management, 25 October - 19 November

Capt RD Townshend

Capt MB Fisk

CANADIAN FORCES MEDICAL SERVICES SCHOOL, CFB BORDEN

First Aid Instructors, 8 September - 8 October

WO W Chaulk

CANADIAN FORCES SCHOOL OF INSTRUCTIONAL TECHNIQUE, CFB BORDEN

Instructional Technique 1

Capt TA Bradley

8 - 25 November

Cpl JM Walker

29 November - 15 December

TRAINING WITH INDUSTRY

TICONIUM COMPANY, ALBANY, N.Y.

Advanced Ticonium, 25 - 29 October

MWO KE Laurence

BIENVENUE

~

WELCOME

A cordial welcome to the Dental Services is extended to: Pte JG Langlis, Mrs HO Hoy, Mrs V Cuddon, Cpl(W) SR Collins, Mrs H Daly, Capt D Brown, Lt RJ Kokotailo, Mrs ECA Ashley, Mrs IV Oliver, Mrs E Cleyndart, Miss J Arsenault, Mrs M Chapman, Miss B Croswell, Mrs D Babin, Mrs M Slaght, Miss C Robertson.

FAREWELL

~

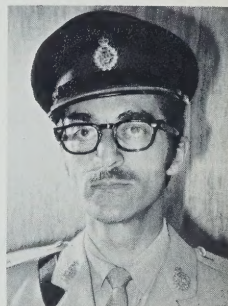
AU REVOIR

Farewell and good luck to: Capt TM Jackson, Major CJ Sivell, Mrs LD Regan, Sgt F Martell, Mrs E Whebell,

PROMOTIONS

LIEUTENANT COLONEL

JJY Turcotte, effective 15 December. LCol Turcotte is now at Doctors Hospital Medical Centre, Toronto, undergoing the final year of a three-year oral surgery residency. He is a 1958 DDS graduate of the University of Montreal.



SERGEANT

RM Haiplik, GG Carscadden, JC Doucet

MASTER CORPORAL

MN Boles, MM Daniels, GW Porteous, D Frerichs, EJ Schultz, MJ Denis, HJ MacGillivray, GG Carscadden

CORPORAL

AT Baird, KLM Davis

VITAL STATISTICS

MARRIAGES

Many years of happiness to: Miss Elaine Marie Bliss and Sgt HW Roberts, Miss Jo-Ann Stephanie Clark and MCpl GE Sykes.

BIRTHS

Congratulations and may the next ones be septuplicates:

SONS: Sgt and Mrs KG MacDonald, WO and Mrs JG MacPhee.

DAUGHTERS: Sgt and Mrs DS Smith, Capt and Mrs WJ Percival, Capt and Mrs HV Ferber, Capt and Mrs DM Hodges, Capt and Mrs RCA Fearon, WO and Mrs TM Deloughery, Capt and Mrs RI Stammers, Cpl and Mrs GL Brophy, Capt and Mrs PFG Stirling, Capt and Mrs RJ Burns, Capt and Mrs TA Bradley, Cpl and Mrs JM Walker, Sgt and Mrs RB Scheer, Major and Mrs HJ Nadeau.

BEREAVEMENTS

Deepest sympathy is extended to: Capt AP Charlebois, Miss IJ Colter and Miss JN Russell on the loss of their fathers; Sgt NC Petersen and Sgt LH Pion on the loss of their mothers and to Mrs RF Matheson on the loss of her father.

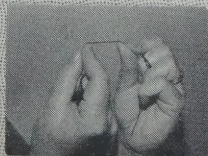
13 DENTAL UNIT DETACHMENT, CFB PETAWAWA



(Left to right). Seated: WO GKW Libby, Capt TM Clark, Maj GR Nye, LCol GE Windsor, Capt DM Hodges, MWO MM Fediuk. Standing: Sgt IG Proud, Cpl L Petkow-Awramow, Capt PD Higgins, Capt CW Kearns, Capt GE Rocque, Cpl AH Peck, Cpl VG Frank, Sgt M McRae, Cpl HL Bodfield, Pte KLM Davis, Cpl WJ Darling, Cpl RA Powell, WO JE Clarke.

The
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DENTAL
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Quarterly

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The CFDS Quarterly



· Volume 13 · Number 1 · April 1972 ·

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Cover Photo

... and now, for plaque
control - the "Floss-In"

The CFDS Quarterly may be subscribed for at \$6.00
per year by writing to:

The Director General of Dental Services
Canadian Forces Headquarters,
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K1A OK2

Quo Vadis ...

LCOL. J.J.N. WRIGHT CD, DDS, MScD.

1968 was an important milestone in the history of the Canadian Forces Dental Services. In that year our service adopted a preventive philosophy as the basis for the dental treatment program in the Canadian Forces. As a result, the CFDS has become one of the world leaders in the practical application of the programmed principles of preventive dentistry. The constantly improving state of dental health of the members of the Canadian Forces attests to the success of this program. April 1972, in all likelihood, will prove to be another milestone of comparable magnitude. From 12 to 14 April a symposium was held at the CFDS in Borden. The program was organized by Major HS Wood, Preventive Dentistry Officer on the staff of DGDS.

Although the present CFDS program was devised with a five year program review, it had become apparent that the advances which have occurred in the field of preventive dentistry since 1968 made it mandatory for a review of the CFDS program to be carried out prior to completion of the five year period. This symposium was therefore held to:

- give a critical analysis of the progress of the present preventive program and to offer constructive criticism on it;
- determine what changes in the program are required in view of new information available on prevention.

The reason for the meeting can perhaps be well summed up by "Plans are useless but planning is indispensable", a remark made to the author in Washington DC in 1966 during a conversation by Colonel Peter M Margetis, former director of the US Army Institute of Dental Research.

Our present program has made major contributions towards systematically improving the dental health of Canadian Forces personnel. It is impossible for anyone even remotely connected with the

program to not be impressed with the vast improvement which has occurred in the dental health of service personnel during the past four years. Nevertheless the time has come for us to take a critical look at the program and to see if it still fulfills our original basic objectives. Have we become so engrossed in chart and graph watching that we now fail to realize we have at best tackled 50% of the dental health problem? A discerning analysis of our program reveals it is almost totally oriented towards caries control.

Periodontal disease has received little, if any, attention. To quote Major NH Andrews, Base Dental Officer, CFB Halifax, "A first class disease has received second class attention".

The symposium was not arranged to afford an opportunity for the CFDS to pat itself on the back but rather to effect improvements in the program. All members of the symposium were sincerely interested in prevention and thus had come to the meeting with preconceived ideas on the subject. However, to the credit of all, they attended with open minds and were, when warranted, prepared to change their ideas. The success achieved at the meeting probably was more dependent on this attitude than on any other single item.

Some of the important points discussed were:

- The role of plaque control in a preventive program.
- Is our approach in the program sufficiently flexible yet at the same time standardized to gain maximum effect in the CFDS? Subjects discussed in this regard included types of tooth-brushes and methods.
- Do we need a program of education for the CFDS personnel on the preventive program?

- What is "significant" periodontal disease?
- How can we best motivate and educate patients?

These are but a few of the myriad of questions that were considered.

An indication of the success of the symposium has already been gained; however, its' true effect will only be de-

termined with time. As Alvin Toffler¹ has so aptly described it, we are in an era of unequaled rapidity of change. He believes the ultimate success of our society will be determined by our ability to cope with and adjust to this change. This is equally applicable both to our profession and to the Canadian Forces Dental Services.

1. Toffler, Alvin. *Future shock*. Bantam Books, 1971.

Four Years of Preventive Dentistry in the Canadian Forces

MAJOR H.S. WOOD CD, DDS, DDPH.*

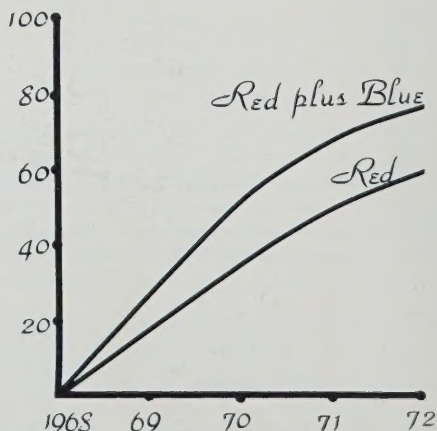
WHERE DO WE STAND?

Due to the nature of my training and that which is expected of a public health trained dental officer, it is necessary to present some statistics in order to live up to a reputation, as well as to indicate our position in the program.

The programmed prevention and treatment plan for the Canadian Forces in existence since 1 April 1968 has produced results. As of 1 April 1972, 57.4% of the servicemen in the Canadian Forces were dentally fit!

The Preventive Dentistry Program color codes the records of all servicemen - red being dentally fit and blue the code for minimal treatment required.¹ The

figure below illustrates the percentage of servicemen red coded (made fit) and the combined percentage of those red and blue coded over the period of the program.



*Presented at CFDS Preventive Dentistry Symposium, Canadian Forces Dental Services School, CFB Borden, April 1972.

Everyone of these persons has also within the past 15 months undergone the prevention portion (Phase I) of the program which includes an examination to verify the color coding.

Since the beginning of the preventive program in 1968, the Canadian Forces have decreased by 15%, therefore the initial numerical projections are no longer valid.² Revised expectations expressed as a percentage to avoid fluctuations in total patient commitment are only a part of the considerations to be undertaken in a review of the program at five years.

It is considered that the success of the program by a large measure is due to the fact that it is the only program to offer its entire patient body a planned prevention and treatment service, with standardization throughout the system and a means of monitoring the progress of each part of the program. We are now at the stage of the program with a relatively high percentage of "fit" patients, and it has become obvious that more and more time is required in order to keep up with the annual maintenance on these fit personnel.

It should be noted that the program was conceived and implemented at no cost to the Canadian Forces either in time or manpower.

LOSS OF FIT PATIENTS TO RELEASE

The frequent complaint in the past which has been heard is that "all of our fit patients are being posted or going on release". One of the dental units conducted a survey for the past year of 946 records of personnel going on release. The following percentages are worth noting;

- red coded records from service releases reported by the dental unit - 40.4%;
- red coded records from total service commitment of the same dental unit - 43.8%.

A return on all service releases was obtained from official sources for a one-month period (November 1971). There were 977 releases during the period. Their dental condition was as indicated in the following table.

Red coded records -	473 (48.4%)
Blue coded records-	221 (22.6%)
Yellow coded	
records -	103 (10.5%)
Uncoded records -	164 (16.8%)
No records available -	16 (1.6%)

This may be compared with the 31 December 1971 statistics for Canadian Forces which show:

Red coded records -	56%
Blue coded records-	20%
Other	- 24%.

Therefore we are not sending everyone out of the service dentally fit but the dental condition of released personnel compares to or in fact is slightly lower than that of the service population. Now the fact that we lose 10 to 12 percent of our patients annually does make a difference since we lost the fit, unfit and nearly fit and replace them with recruits who are frequently unfit and must always be put through the preventive phase of the program.

THE PROGRAM AND THE FUTURE

We know that one year from now the program will have been in effect five years. At that time a review is planned which will duplicate much of the previous study done. This will be a detailed and specific coverage with use of appropriate research and statistical facilities and though it will measure numerically the success (DMF, time, etc) it cannot measure the intangibles such as education, motivation and similar benefits.

The promotion of the program must by and large remain the responsibility of local personnel and local success is dependent upon local interest, enthusiasm and efforts. The DGDS can motivate or promote only at Headquarters level and can support the local programs.

OF PREVENTION GENERALLY

In line with increased research and knowledge, this seems to be the era of the preventive practice and evangelists are out in force. One wonders at the fervor of some of them and one is prompted to examine the returns from all this

prevention. Is it possible that there is a tetralogy of misplaced altruism, tunnel vision, auxiliary use and financial rewards? *Prevention is important* and at present plaque control appears to be a means of preventing smooth surface caries and initial periodontal problems but, prevention should not stop there. It should also include such things as correct restorative procedures to minimize tissue injury, maintenance of space due to tooth loss, correct location of retention on a partial denture and all of the other measures which can be thought of as preventive in nature.

In a desire to keep our program current and implement procedures as determined by research results, there must be periodic modifications to the program within the limitations imposed by time and the nature of the military task. The Preventive Dentistry Symposium is conducted with a twofold aim:

- to locate and define problem areas in a review of the existing Preventive Dentistry Program; and
- in the light of present understanding of plaque, to deter-

mine if modifications are required and if so, to recommend feasible and practical plaque control measures within the framework of the present program.

We know that much of the population will not be motivated to remove plaque from their dentition, but we also know that as dental officers we are ethically and morally obligated to practice the preventive aspects in each phase of dentistry which we undertake. In discussing our program we must then consider it more than applying fluoride or teaching the use of floss or trying to motivate; it must be a combination of as many facets of prevention as there are facets to dentistry.

1. Kearney, B.P. *The red tape in prevention*. Royal Canadian Dental Corps Quarterly, 10:1-5, April 1969.

2. *Report of two year study, the dental condition of the Canadian Forces*. Director General Canadian Forces Dental Services, CFHQ, Ottawa, 1967.

Bacterial Plaque - A Cause of Periodontal Disease

MAJOR L.A. REYNOLDS, CD, DDS, MScD.

Chronic inflammatory periodontal disease begins as a gingivitis and for a period of time is confined to the *gingival unit*. Uncontrolled gingivitis extends to the *attachment apparatus* and interferes with the supportive function of the tooth. The eventual result of periodontitis is tooth loss and the destruction of the masticatory apparatus.

The primary agent responsible for in-

itiating periodontal breakdown is *bacterial plaque*. The major components of bacterial plaque are pellicle (a salivary derivative), microbial masses and inter microbial matrix. The mechanism by which micro-organisms lead to the destruction of the periodontium is unclear.¹ Potential mechanisms involve the production of lytic enzymes, "cytotoxic" metabolites or the initiation of chronic inflammation, possibly via allergic phenomena.²

Local irritants often considered important as etiologic factors exert a deleterious effect because of their association with bacterial plaque. For example, gingival inflammation is a constant finding in subgingival restorations because of the privileged areas created for the accumulation of hordes of bacterial micro-organisms. Systemic factors do not *initiate* periodontal disease but may exert a modifying course on the condition.

All preventive periodontal procedures are therefore aimed at the removal and dislodgement of bacterial plaque in the region of the gingival attachment. The only safe method of bacterial plaque removal is by means of mechanical dispersion.

The goals of plaque control are to teach the patient how to identify and remove plaque. This can only be accom-

plished through the use of (1) disclosing solution, (2) a soft multitufted nylon toothbrush (for buccal and lingual cleansing), and (3) unwaxed dental floss (for interdental cleansing).

Teaching and educating the patient is essential in any program aimed at patient motivation. However, it is not enough to know what causes periodontal destruction. The patient must act as his own therapist, and in the final analysis, prevention rests with the patient's ability and willingness to control the daily accumulations of bacterial plaque in the region of the dento-gingival junction.

1. Socransky, Sigmund S. *Relationship of bacteria to the etiology of periodontal disease*. J Dent Res 49:2, p. 216, April 1970.

2. Ibid.

Motivation and Plaque Control

MAJOR J. F. BEGIN, CD, DDS, DDPH.*

At a time when the leaders of the profession generally acknowledge that prevention is both feasible and economical, it is rather disconcerting that some members still profess that

- we must be concerned with dental demands and not needs;
- effective prevention is an unrealistic goal;
- we can still roll back the tide of oral disease through corrective and reparative therapy alone.

*From presentation at CFDS Preventive Dentistry Symposium and subsequent discussion, CFDS School, CFB Borden, April 1972.

The Canadian Forces Dental Services have adapted the preventive approach as the most practical means of achieving a dentally fit force.

For dental personnel preventive dentistry means to practice comprehensively all measures which prevent, control or arrest oral diseases in each phase and discipline of dentistry. It therefore includes:

- preventing the onset of oral disease;
- arresting the disease process;
- repairing injury;
- restoring function; and
- preventing sequelae.

The above is accomplished by making the man fit and maintaining fitness. This involves a long term comprehensive approach to prevention before, during and after reparative measures.

The latest results of the four year evaluation leads one to believe that the CFDS is heading in the right direction. From a Force of which only 22% were dentally fit at the beginning of the program, we have progressed in four years to approximately 60% dentally fit.

In assessing the overall benefits of the preventive program today we should consider what conditions were like prior to 1966:

- the emphasis was on treatment rather than prevention;
- the greatest effort was directed towards the worst dental conditions;
- the dental effort was directed at the demand and not actual needs;
- we never knew how many were dentally fit or unfit;
- there was confusion as to priority for care;
- we suffered the inefficiency of large irregular sick parades; and
- education and motivation was not stressed enough.

In contrast we can now say that:

- we have increased the combat readiness of the Canadian Forces;
- decreased the incidence of oral disease;
- decreased sick parade demands;
- what we are doing is more professional;
- a more logical, organized and systematic approach is now in effect;
- definite objectives, improved morale and a sense of accomplishment is evident;
- we have a better knowledge of the dental condition of our bases and units;
- the patient is more involved in his own care; and
- there is better motivation of both patients and dental staff.

And of course there are many more benefits from both an administrative and professional point of view.

The recent Preventive Dentistry Symposium underlined the necessity to look forward and not rest on our laurels. The system of annual program evaluation has offered the directors and coordinators of the program an opportunity to look ahead in unison, and it is now becoming evident that the next phase in our program is to incorporate into the existing framework the practical application of new knowledge in the control of bacterial plaque through patient education and motivation.

That bacterial plaque has been implicated as the common etiologic factor in both dental caries and periodontal disease gives new meaning to oral hygiene. Stated simply, we know that certain plaque bacteria have the ability to break down the sucrose molecule and restructure carbohydrates into more complex intra and extracellular polysaccharide which give the bacteria adhesive properties and a reserve supply of carbohydrate for late acid production. As well, other species of plaque bacteria produce toxic substances which initiate gingivitis because:

- without these bacteria there is no gingivitis;
- remove the bacteria and the gingiva returns to normal;
- kill the bacteria and the gingiva returns to normal;
- reintroduce the bacteria and the disease occurs.

One could define bacterial plaque in different ways. We know there are upwards of sixty-four species of bacteria in a complex metabolically inter-connecting highly organized bacterial system.

Based largely on our new understanding of the importance of bacterial plaque, we conclude that any preventive program must include patient instruction in plaque control based on the following premises:

- the concepts of prevention must be valid and current;
- these concepts must be communicated to the patient in such a way that the patient can understand and

absorb them;

- the program should motivate the patient to follow through and put these concepts into daily practice.

Therefore our new approach should be to:

- motivate the soldier to want to keep his teeth clean;
- teach him a technique of cleansing that is effective;
- reinforce this motivation and improve the serviceman's cleaning efficiency at each visit.

Basically the concepts of preventing plaque accumulation which we should be teaching and showing military personnel are not difficult and should be standard throughout all our clinics. These are:

- Dental disease is caused by bacteria in the mouth growing in large sticky masses on the teeth and producing acids, toxins, enzymes, etc.
- After removal these bacteria and plaque grow and reform within 24 hours.
- The best thing the serviceman can do for himself is to thoroughly remove plaque each

day.

- Food is secondary but carbohydrates are involved and should be removed after every meal.
- The use of a disclosing solution or tablet will help to identify plaque sites and missed areas.
- The patient should know and practice an effective technique of brushing and flossing.

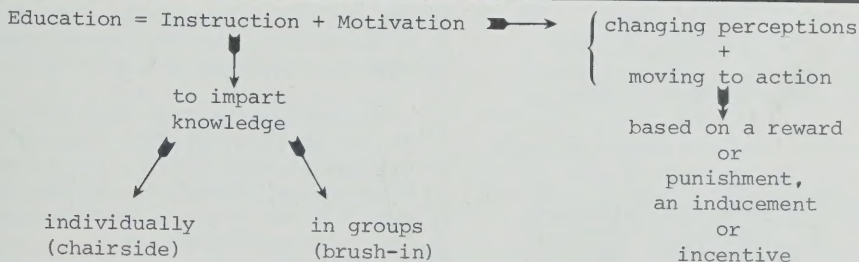
But in order for the dental officer and his staff to teach this message they must be thoroughly convinced of the effectiveness of the preventive approach. Also they must practice what they intend to preach since only then can they effectively transmit this knowledge to the serviceman.

In the matter of educating and motivating the serviceman we have falsely believed in the past that

Telling = Teaching

Listening = Learning.

We now know that this is not so and that all education is dependent upon communication and motivation which involves getting through to the patient and moving him to action.



There is an old proverb which goes:

I hear and I forget
I see and I remember
I do and I understand.

havioral scientists and as practiced by Training Command with its' performance-oriented training system.

This *Tell-Show-Do* approach is basic to any learning process as shown by the be-

A recent study comparing periods of retention of information has shown the following:

<i>Method of Instruction</i>	<i>Recall 3 hours later</i>	<i>3 days later</i>
Telling	70%	10%
Showing	72%	20%
Telling and Showing	85%	65%

One would like to believe that adding a third ingredient, *active patient participation*, would increase the 3-day recall to 90%.

In any event, we do know that the essential ingredient in education is communication between the dental officer and his patient. It is important that the elements of interpersonal relationships and group dynamics be brought into play. Before we sell our message we must sell ourselves. With an understanding of the etiology of dental disease, the patient is better equipped to appreciate corrective measures. Patient education must be a continuing process from our first contact throughout the time he is in our care.

This communication involves getting through to the patient and includes:

- Listening to him; his complaint, past history, present condition and dental experiences, his knowledge, hopes and desires for the future.
- Detailed examination and informing the patient of his condition.
- Case presentation, to include:
 - etiology of dental diseases and consequences
 - what dentistry can and can not do
 - what the patient must do.

Having established a rapport or relationship with the patient through effective personal communication we must now gain an understanding of basic principles of patient education psychology.

There are five points which must be stressed:

- Understanding the goals and objectives; plaque control for disease prevention using any and all devices necessary.
- Active participation; learn by doing. Demonstrate correct measures and materials;

have the patient perform it.

- Immediate feedback; questions and answers. Assure understanding and techniques.
- Reinforcement. Correct the faults in his techniques; bring his performance up to standard; identify difficulties; use encouragement and the positive approach.

It goes without saying that there are many more principles of teaching and learning which are fundamental, such as:

- Use layman's language in talking to patients.
- Be careful not to lose him - stop and ask questions.
- Don't stray - give the presentation in an orderly manner.
- Deal with the most important first.
- Concentrate on the patient's particular problems.
- Use the patient's mouth to demonstrate.

When adapting these concepts to a military plaque control program, the instructor must decide on the best method of presentation and whether the message will be given in one, two or three instalments. The method used must be simple, realistic and practical.

We know that plaque control is basic to the practice of dentistry and that without it oral health can be neither attained or preserved. It has been said that the key words to remember in our instructing patients are:

define	- disclose	- practice
describe	- brush	- review
illustrate	- floss	- recall
demonstrate	- evaluate	

Most health educators feel that too much at once may overwhelm the patient and that our message may best be taught in three segments during three appointments, the first being an introductory

one explaining plaque and its relation to oral disease along with the examination, the second describing dental decay and periodontal disease and plaque control measures, with the third appointment for a brush-in or prophylaxis and a repetition of the control measures as the treatment progresses. Proper use of motivational aids enhance the instruction, but the best motivational aid is the patient's clean mouth and the remission of gingivitis.

The introduction of a new phase in our preventive program takes on special importance when one includes the problems of manpower, resources, finances, facilities and operational commitments.

The CFDS program was initially a caries preventive program. Many of our clinics introduced concepts of gingivitis prevention on their own, and modified the program guidelines to initiate local plaque control programs. In establishing new national guidelines and standardization of methods we must not abandon what is already established but rather incorporate new thinking into the framework of what already exists.

There is no reason why patient education and motivation cannot be made a part of the Phase I on all our military bases. It has been suggested that both the self-preparation and the chairside counselling are excellent opportunities for plaque control since they lend themselves well to active patient participation and involvement. What is suggested also is that plaque control should not be confined to Phase I primary prevention but that it be an integral part of each subsequent Phase II treatment appointment and that more expensive and elective dental rehabilitation be in part conditioned on the patient's ability and willingness to control his bacterial plaque.

In arguing the relative merits of the self-preparation and chairside instruction, recent opinion has it that the latter is a better motivational tool and professional service and should be used whenever and wherever feasible. The self-preparation must be retained in areas of dental manpower disadvantage and as a caries preventive measure for the younger population.

These concepts can best be summarized by a consideration of the following recommendations which were raised at the symposium:

- That we must all strive for a better understanding of
 - patient communication
 - elements of educational psychology
 - concepts and methods of motivation.
- That we accept our responsibility to teach patients
 - the basic etiology of dental diseases
 - the role and importance of bacterial plaque
 - proper and standardized plaque control measures.
- That we make a greater effort to practice what we preach and this involves
 - educating CFDS personnel through unit training
 - assisting CANEX in stocking preventive materials
 - publishing a CFDS plaque control pamphlet
 - acquiring new films on plaque control
 - putting ourselves, our staff and our families on plaque control.
- That we all insist on patient participation and involvement at both the brush-in and chairside instruction.
- That plaque control be initiated and continued throughout Phase I and II by both the auxiliaries and the dental officers.
- That we take a new look at secondary prevention in the treatment phase based on organized plaque accumulations.
- That we no longer consider individuals as preventive dentistry officers since all dentists are preventive oriented, whereas only designated dental officers are program coordinators.
- That every effort should be made to use the information

available from the preventive program (regarding dental needs, maintenance and preventive care, chairside requirements and auxiliary support) to justify adjustments in our manpower establishment where required.

In conclusion we believe that we, the members of the CFDS are finally getting close to a meaningful definition of a successful dental practice in that the greater percentage of our military personnel are preventing dental disease in their own mouths because of the influence of all dental personnel.

The Feasibility of Plaque Control

CAPTAIN W.A. GRAY, DDS

A short term study was undertaken in the Baden clinic to assess the feasibility of including plaque control and flossing in the present preventive dentistry program. As it was desired to incorporate the measures on a group basis, the procedure below was used.

Patients who had a scaling and prophylaxis within the last two months were selected at random from the hygienist's appointment book. These patients were chosen because it was necessary to have subjects with minimal or preferably no calculus in order to better assess their brushing and flossing habits.

The patients were divided into two groups of forty. The first group was given an oral hygiene instruction period five patients at a time. (This size group was chosen because of the lack of suitable facilities for a larger group.) The instruction period included an explanation of the CFDS preventive dentistry program, correct brushing technique, flossing, irrigation (rinsing), the use of disclosing tablets and type of brush and toothpaste (fluoridated) that should be used.

During the instruction period it was stressed that dental health requires regular, and most important of all,

thorough oral hygiene habits on the patient's part, and that the benefits of the preventive dentistry program would only be as good as the patient's individual efforts at home.

All patients were given an examination with a note being taken of his or her oral hygiene and any inflamed gingival tissue or areas that were being missed in brushing. All interproximal areas were flossed to check for debris. All problem areas were pointed out to the patient using the hand mirror as an aid. Each patient was shown how to floss using a dental model and then allowed to try it himself.

Each patient was given an oral hygiene kit and instructed to use it as directed for two weeks. At the end of two weeks the patients were brought back for another examination.

The patients in the second group received the same instruction except that they were brought back on two successive days following the initial instruction period to check their brushing and flossing and to re-enforce the first instruction period. At this time any problems encountered by the patients were discussed.

Both groups were seen in two weeks time. All patients in both groups were given a thorough examination using disclosing tablets, dental mirror, explorer and floss. All problem areas were noted and compared with the initial examination.

Results of Oral Hygiene

	1st Group (36)	2nd Group (38)
Improved	8	28
Same	20	8
Worse	8	2

OBSERVATIONS AND CONCLUSIONS

Flossing instruction did help to improve the oral hygiene of about 22% of those who received one exposure to the flossing instruction and about 77% of those receiving three instruction periods.

Those patients receiving the three periods of instruction showed more enthusiasm and better co-operation. When questioned, most in this group said they used the floss at least once a day, usually in the evening. A large percentage (40%) of the patients with only one instruction period admitted to only an occasional flossing, some only one or two times a week. Although flossing instruction seemed to benefit most of the patients, it would appear that the extra time involved in follow-up instruction

periods was worth the effort.

Most patients showed a sincere interest and asked meaningful questions during the survey. Many had never heard of floss before, while several were flossing on their own because their wives had been given flossing instruction by a civilian dentist.

A large number (40%) complained of difficulty in flossing in the posterior areas but most overcame this problem with practice. Many complained of floss fraying and breaking because of tight contacts and rough fillings. Those with this problem were told to use waxed floss and report any further problems.

As a result of this survey conducted in the Baden clinic, it is strongly recommended that some form of reinforcement be given as a follow-up to oral hygiene instructions given during brush-ins as the average patient needs a greater concentration of oral hygiene instruction if the program is to be truly successful.

Perhaps this could be done with the use of a film a short time after the initial instruction. This could be of great help to field units, especially where an infantry company or similar sized group could view it as a group.

Trial Introduction of Plaque Control- CFB Chilliwack

CAPTAIN P. E. ARNOLD, DDS.

OBJECTIVES

To initiate into the annual recall of the Preventive Dentistry Program an effective plaque control technique that can be taught on a group basis.

To evaluate the effectiveness and

success of the program on the personnel being treated on a group basis versus the "one to one" relationship between the individual patient and the therapist.

DURATION

The concept of plaque control for a

group was instituted on 7 January 1972 during the weekly recall routine and will be continued each week in the future.

The plaque control "experiment", i.e., the evaluation of this program and acceptance by the personnel was carried out with red coded (dentally fit)¹ patients on recall from 4 February to 4 April.

PERSONNEL, FACILITIES AND ARMAMENTARIUM

Demonstration

- Dental team (dental officer and dental assistant)
- Dental bay and waiting room
- Paper cups, disclosing solution, paper towelling, dental floss, hand mirror and teaching aids (posters, dentaforms and toothbrushes)

Home Care

- Plaque control kit
- List of home care supplies available for purchase at the base exchange (waxed and unwaxed floss, mouth mirrors, disclosing tablets, toothbrushes)
- Plaque control booklet

Clinic Routine

Teaching Appointment

During the regular annual recall examination during the Preventive Dentistry Program morning, the red codes were requested to remain behind for a plaque control demonstration. This number varied from six to twelve patients on an average.

The dental assistant arranged the patients in a semi-circle in the dental waiting room and distributed plaque control kits and booklets. It was important for the patients to be in close proximity to the demonstration for more personal contact and easy observation of flossing and brushing techniques. The dental officer then took over and the dental assistant prepared the dental bay with tray set-ups and disclosing solution.

The teaching appointment basically covered:

- A layman's description of oral health.
- An introduction to the use and importance of dental floss plus a demonstration of accepted techniques on a small dentaform model. Emphasis was placed on the importance of using floss without relying on any other dental aids. The use of a mouth mirror was discussed in terms of useful adjuncts for the beginner to learn how and where to floss but that once the technique was mastered, use of these items was discouraged, to encourage a state of independent dental health with floss and brush only.
- A demonstration on the large dentaform was given for the correct brushing method, i.e., the BASS technique of sulcular brushing before the occlusal sweep.

At the conclusion of the lecture the patients were divided into groups of three and brought into the dental bay. Here they were given the disclosing solution and one of the patients was placed in the chair with the other two observing. The dental officer showed each patient in turn how the disclosing solution stains plaque and what particular areas he was missing. At this point they were requested to institute plaque control in their home brushing routine and attempt to learn the skill. Finally they were told to return the following week for the follow-up appointment.

Follow-up Appointment

Time was set aside on the preventive morning to give patients the opportunity of returning for evaluation and further instruction. Ideally, if time permits, the patient should demonstrate his flossing and brushing technique and be given further instruction if needed. Furthermore, the follow-up appointments may be carried out weekly for as long as deemed necessary.

The follow-up appointment can be conducted by the dental assistant.

EVALUATION PROCEDURE

Approximately sixty patients were given the plaque control program during the experimental period. As mentioned, they were red codes only, selected from the regular recall program. They represented a cross-section of the average serviceman with the rank being from Private to Captain and most with three or more years of service. The routine described above was followed and each patient was given a plaque index number when first examined in order to measure his progress (0 - no plaque; 1 - interproximal plaque only; 2 - interproximal and gingival plaque; 3 - generalized plaque). Some groups were given only one follow-up appointment and others up to four.

CONCLUSIONS

It was generally considered by this clinic that group demonstrations of plaque control could be taught but a limited study of this type could only indicate some trends and not conclusive evidence of complete success or failure. Patients were not ordered to return for follow-up appointments but rather, were requested to do so only if they desired appointments. This would give a better indication of acceptance or rejection of the program. This resulted in 50% of the sixty individuals not returning; therefore, it was unknown to what degree they accepted the plaque control program. Of the remaining 50%, all required further encouragement and/or instruction but 35% showed a definite improvement in their oral hygiene. The remaining 15% required further follow-up instruction and at least 5% never progressed any further no matter how much time was spent on them. Therefore, approximately four out of ten patients accepted this new preventive measure. This, of course, does not measure the success rate accurately but demonstrates that this program has merit and should be pursued.

The following observations were also made.

Size of Groups. The larger the group during the teaching appointment the less communication with the individual and therefore less response to the program. Small patients seemed to be the ideal number.

Type of Groups. Red codes showed much better response as a group than yellow or blue coded on a "one to one" basis.

Mental Attitudes. Generally the senior NCOs and young officers displayed keener attitudes and developed skills faster.

Previous Dental History. Patients who had desirable states of oral health prior to and throughout their service careers made excellent plaque control subjects. Also, cooperative patients who were upgraded from yellow to red codes with many consecutive dental appointments generally showed high degrees of interest and co-operation.

Follow-up Appointments. The more follow-up appointments a patient had the better he mastered plaque control.

Three other variables also could affect the success of this preventive phase. The first is the speaking capabilities of the individual giving the teaching appointment. It takes a good salesman to sell a new product and dentistry is no exception. Secondly, the confidence Forces personnel have in their local dental staff will greatly influence the success of the program. Lastly, the dental clinic must ensure it has established a sound preventive dentistry program; that is, a co-operative preventive team can accomplish this very easily.

RECOMMENDATIONS

The plaque control program should be continued no matter how many patients are accepting it at this time. Continued exposure to this type of message will eventually lead to widespread acceptance.

Permanent issue should be made to all clinics of plaque control kits for red coded recalls. This will encourage the use of these items since money out of a patient's pocket is a deterring factor.

Size of groups during the teaching appointment should be limited to ensure maximum communication. This can be accomplished by giving the program to red coded patients only since the fail-

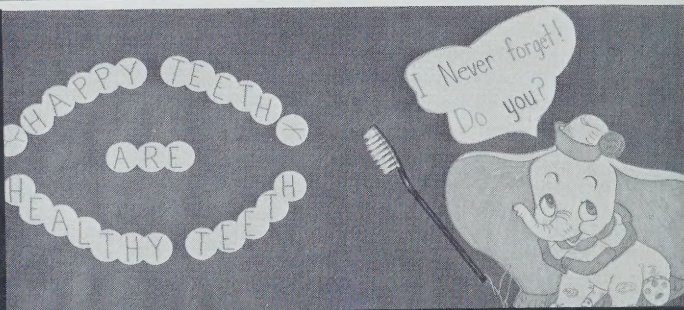
ure rate is directly proportional to the level of dental health of the patients.

Symposiums and communication within the units should be continual to stimu-

late new ideas and continuity in the plaque control program.

1. Kearney, B.P. *The red tape in prevention.* Royal Canadian Dental Corps Quarterly, 10:1-5, April 1969.

CFB Petawawa Primary Schools Brush-In



CAPTAIN D. M. HODGES, DDS.

At the request of the School Board and with the blessings of Col WR Thompson, CO 13 Dental Unit, a Brush-In was held for the primary school children of CFB Petawawa during the week of 7-11 February. Two teams, each consisting of a dental officer and dental NCO, visited the two primary schools with the aim of promoting Dental Health Week and to give the children in kindergarten and grades 1, 2 and 3 a Brush-In with a topical application of fluoride.

Two weeks before the Brush-In the staffs of both schools were given literature and posters (compliments of Proctor and Gamble). One week later films obtained from the Canadian Dental Association, *A Dentist Visits The Classroom* and *The Beaver's Tale* were shown to the children. Consent forms for the fluoride application were distributed to the children at this time. Also that week, an article on fluoride was published in the base newspaper with a complete page devoted to the theme of Dental Health Week. The children were therefore quite prepared for the visit and some classes

had made very interesting projects of the program.

Brush-Ins for school differ from Brush-Ins for servicemen mainly in the timings. Principals of both schools were contacted and schedules on the basis of one hour per class were tentatively arranged around recess periods. In General Lake School there was a problem of lack of accommodation in which to conduct the Brush-In. By using a library cart for the materials, the team was able to roll from room to room and conduct Brush-Ins in individual classrooms. At Pinecrest School a room was provided and the classes marched to and from the room.

444 students were brushed-in at General Lake School and 572 at Pinecrest. The material requirements of the program were essentially the same as for servicemen. 2,000 large and 2,000 small cups were used. Toothbrushes were given to each student. 350 Crest kits with small brushes were available, having been sent to the schools for use with the Grade 3

students. The disclosing tablets were removed for use with the kindergarten children. A number of Odonto brushes were obtained for the older children. Toothbrushing paste consisted of flour of pumice and acidulated phosphate fluoride with some lemon flavouring added to improve the taste. Unflavoured acidulated phosphate fluoride solution was used for a rinse as it was decided that the taste would ensure that the children would spit it out after rinsing. Colouring books (from Proctor and Gamble) were given to each student.

Capt DM Hodges and Sgt IG Proud who conducted the Brush-In at General Lake School, found that about 45 minutes were required for each brush-in. The time varied with the ages of the children and the interest displayed by the class. Projects prepared for Dental Health Week ranged from realistic paintings of "The Dentist" and "Teeth" to a ten-minute skit about tooth decay - "Superbrush" and good oral hygiene. Of the 444 students at General Lake only two had nega-

tive consent forms. No incidents of nausea were experienced with acidulated phosphate fluoride. Supervision ratio of each class was usually better than 1:10 as most of the classes ranged about 25 pupils. When the kindergarten children rinsed with acidulated phosphate fluoride solution, they were grouped in fours to ensure supervision.

Capt PD Higgins and MWO RK Jones were provided with a room at Pinecrest School where the classes arrived with their teachers. Six refusals were received in this group of 572 students. Seven instances of nausea were reported but none of these were serious.

The brushing-in of 1,016 children in one week could have been speeded up but only at the disruption of the schools' schedules. The staffs of both schools enjoyed the sessions and were pleased with the results. It was excellent dental public relations with the benefits of a topical fluoride application.



"The
toothpaste
tasted like sand"
"It killed all the germ
bugs."
"Brush each part eleven times"
"We got to keep the toothbrushes"
"But we really thought it tasted like vinegar"
"In one little cup there was some black toothpaste"
"We brushed with the black toothpaste"
"We know that candy and too much sugar is not good for us"
"In our mouth was a bad bug"
"We had our pictures taken"

(Nat Defence photos)

If at first you don't succeed . . .

(Excerpts from a recent memorandum)

1. I am returning your submission docket. This submission cannot be considered for approval until the matters mentioned below have been corrected.
 - a. In line 5 of the *Proposal*, the word *thereto* should be *hereto*.
 - b. In line 8 of paragraph 5 of the *Remarks*, the word *that* should be *those*.
 - c. The material on the file must be re-arranged so that there is one unmarked envelope at fly-leaf containing:
 - (1) the original and one copy of the draft order, each with a starred copy of the proposed regulations in each language stapled to it, separated from other groups, and held together by a paper clip or rubber band;
 - (2) five starred copies of the proposed regulations in each language, separated from other groups, and held together by a paper clip or rubber band with a small typed note loosely attached by paper clip, to the following effect:

*These copies, which have been examined for the
in accordance with the requirements of the Statutory Instruments Act, are required in order to process this order.*
 - (3) 23 copies of the submission each with copies of the proposed regulations stapled to it; these need not be starred copies of the regulations but should be photocopies from a starred copy, or, if retyped, must be identical to the starred copy, separated and held together with a rubber band;
 - (4) 10 copies of the draft regulations (not starred) in both languages, separated with a typed note attached by paper clip, indicating:

For retention by
 - (5) the original of the memorandum with a copy of the submission and the proposed regulations attached; and
 - (6) five copies of the memorandum with attachments as in (5) above, for distribution by this office.
2. The following should be placed firmly on the file:
 - a. the Departmental signature sheet;
 - b. copies of:
 - (1) the proposed regulations;
 - (2) the draft order;
 - (3) the submission;
 - (4) the three covering memoranda.
3. Please return this file for perusal of corrections before forwarding it for approval of submission.

Applications for a posting to replace the recently retired member of the Canadian Forces who received the above instructions should be made in seven copies, placed on an appropriate docket in the manner set out below and forwarded through normal channels for consideration and disposal.

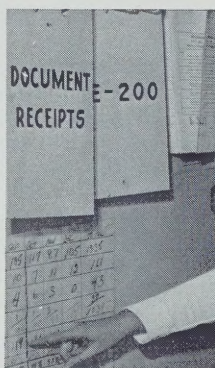
- a. Place original and two last carbon copies in an unmarked envelope and attach by staple to flyleaf of docket; a small typed note inscribed *This envelope contains the original and two copies of the paper on file* should be affixed to the envelope with a paper clip. Use of rubber bands for this purpose is prohibited.
- b. Carbon copies one to four or if retyped, copies identical to the original copy in envelope at flyleaf shall be firmly affixed to the file. A covering note describing the papers on file is not necessary but it is of the utmost importance that no indication is displayed on the cover of the docket or inside as to the subject or purpose of the papers on file or in the envelope at flyleaf.

CFDS NEWS



S/L Michael A. Ford, BDS, FDS, RCS (Eng), Preventive Dentistry Officer for the RAF was in Canada 19-26 February studying the CF Preventive Dentistry Program. In Ottawa he visited the DGDS and toured 1 Dental Unit clinics; then travelled to CFBs Trenton and Borden to discuss and observe the program.

With Cpl Fletcher and Sgt Hannay at CFB Rockcliffe dental clinic observing progress charts.



With Commandant CFDDS, Col LG Craigie

At CFB Trenton Preventive Dentistry Annex observing Brush-In with Capt Bouris (left) and MWO Kidd.





Tenth Annual CFDS Bonspiel

CFB BORDEN 3-4 MARCH 72

by Major J. F. Begin

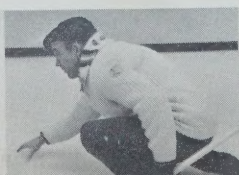
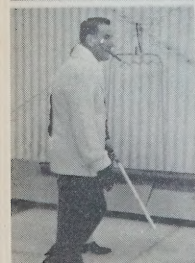
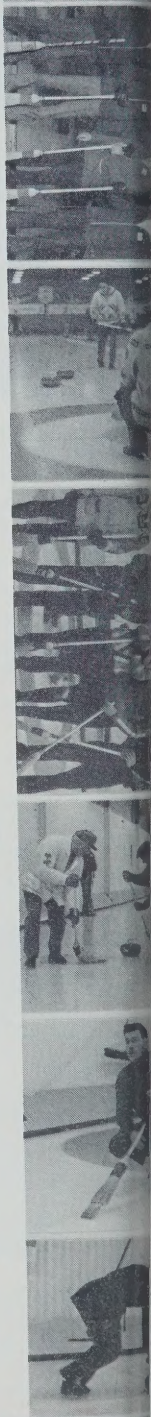
The gang from the Maritimes will long remember their Tenth Bonspiel, as will the drawmaster, Capt Dale Graham. With inclement weather and cancelled flights to obstruct them, our colleagues from 12 Dental Unit persevered in their determination to see Base Borden again, and it was a pleasure for all their friends to welcome BGen Bert Kearney, LCol Andy Andrews and Major Noel Andrews back to their "alma mater".

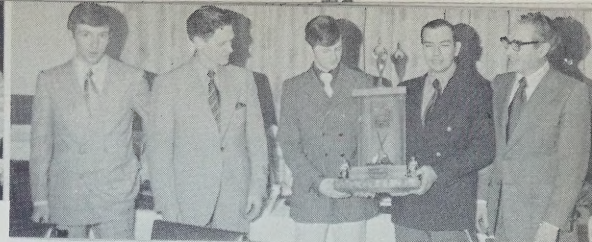
It was also a pleasure to see BGen Ken Baird and Dean Jack Neilson out curling with their many friends. It is fortunate that so many retired and ex-members of the CFDS have retained their association with their Forces colleagues.

We were fortunate in obtaining use of the Maple Officers' Mess as headquarters for meals and social get-togethers as it added a whole new atmosphere to our bonspiel. The co-operation of all present in respecting the facilities is appreciated and will make our request next year that much easier.

Members of the CFDS were proud of the Jack Sinclair team which made it to the finals and were it not for Kennedy and the rest of the western boys, would have gone all the way. LCol Sills insists that his original team of Red Palmer and Eric Cragg would have taken home the hardware, and is still a little sceptical of Maz's argument that these two players were needed on other teams. Capt Gagnon and his francophone boys were heard to explain that *next year* they'll pack a team to beat those *maudi anglais* - all in good fun, of course.

We're told that Randy Headley, Bill Collier and Frank Margetts came up from Trenton in a staff car - at least that's what the busload of westerners claimed as they debussed late Thursday night. Of course Randy, Bill and Frank didn't exactly appreciate this, since their taxi from Trenton cost them a pile of dough.





Due to the weather five teams were cancelled, resulting in a rescheduling of the 1 a.m. and 3 p.m. draw. With the large number of rinks entered (44), and the shortage of ice, it looked one time like an all-night bonspiel. Thus a convergence of opinion. One school of thought is that the bonspiel has grown too large and should be limited by having the unit playoffs in advance of the CFDS bonspiel, and the other is that the object of the exercise is to get as many members of the CFDS together as possible, and the social contact is equally important as the overall effect on spirit, morale and tradition is invaluable.



Winner

Runner-Up

Bill Percival
Daryl MacKenzie
Bill Thompson
Nick Bouris

Jim Fennell
Don Graham
Doug Watson
Tom Erskine

Ken Kennedy
Tom Batten
Art Tait
Blain Pollock

Jack Schultz
Dave Devine
Jerry McDonald
Paul Williams

Red Palmer
Bev Gilkes
Bob Mullins
Helen Swiatkevich

Tom Sullivan
Rene Tremblay
Earl McFadden
Henry King

3rd Prize

4th Prize

Dale Graham
Bill McInnis
Harold Brogan
Jack Saddler

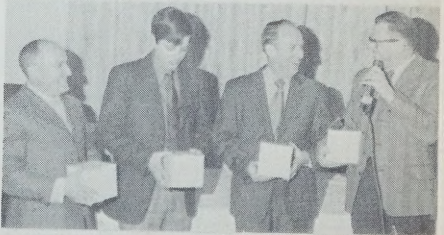
Bill Kearns
Terry Clark
Harry Pack
Dave Hodges

Paul Mehler
Arnie Chestnut
Cliff Beauchamp
Jerry Fathers

Ken Baird
Ben Gareau
Harry Bunston
Bill Sheridan

Yogi Chamberlain
Chuck Jewson
George Payette
Dawn Duncan

Eric Cragg
Brian Scow
Norm Butcher
P.J. Lunney



Fifteen DENTAL UNIT

by Sergeant J.R. Joly, CD

Awards



Sgt Gapmann was presented the CD by BGen Armand Ross, Commander CFB Montreal in February.

Retirements

Two members of the CFB Valcartier detachment retired recently; Maj Joubert on ending his short service commission (plus a year's extension) and Sgt Marc Tremblay, who had over 20 years service. Maj Joubert is going to practice in Rimouski and Sgt Tremblay is going to settle in the Quebec City Area. Sgt JJ Roy of the CFB St Jean detachment has retired after 23 years service.

Travel

WO Dot Adcock returned from leave in England to the comfort of central heating just before the strike and power cuts in the U.K.

Blessed Events

We're not advertising but Capt Meunier's St Bernard had pups and they're for sale. All the dogs and Capt Meunier are at CFB Bagotville.

Winter Carnivals

Winter carnivals are held at most bases (especially the isolated ones) in Quebec during February and March. One station CO aptly put it: "During the long cold winters in the north, those who can't go to Florida for holidays should have some excuse to let their hair down and that's the purpose of the carnival" ... Capt Fortier entered (and survived) the snowmobile race at CFS La Macaza's carnival ... his assistant, Cpl Morin, entered the less dangerous beard growing contest ... Miss Chretien, our hygienist at Longue Pointe arrived at CFS Senneterre just in time for the carnival there in spite of the most severe snowstorm of the season and the air controllers' strike.

Sports

15 Dental Unit held its first annual bonspiel at St Hubert 28 February. A practice match for the CFDS Bonspiel in Borden? Never! Six rinks participated, creating a problem for the drawmaster since we were limited to a half-day's curling. Sgt Hall's rink from unit stores took top honours on a point basis.



The winning rink - Sgt Hall, Cpl Kent, Cpl Beauchamp and Capt Savoie.

Capt Roy of CFB St Jean participated in the Zone 6 badminton finals at CFB Valcartier ... WO Gerry Fathers and Sgt Paul Mehler of the St Hubert clinic are members of the CFB Montreal basketball team which will be competing for the Quebec Regional Basketball Championship 20-21 April.

Fourteen DENTAL UNIT

by Mrs M. Dykes

Prairie Patter

BGen Garth C Evans visited the dental facilities and supply section at CFB Edmonton in early February ... MGen RJ Lane, Deputy Commander FMC, inspected CFB Shilo's dental facilities ... Capt JS Dion and Cpl JJ Vasek made up the dental team that accompanied the Airborne Regiment to Jamaica on Exercise NIMROD CAPER IV, 16 March to 25 April ... Col LR Pierce hosted Dean JW Neilson, University of Manitoba's Dental Faculty head, to a recent TCHQ Commanders' luncheon. This was followed by a tour of the CFB Winnipeg north site dental facilities ... Maj CL Gullekson, Capt DL Brown and Capt TA Rawlyck are actively engaged in the Moose Jaw Dental Society. They also helped organize and conduct a highly successful Dental Health Week in Moose Jaw ... MGen WA Milroy was recently hosted by the CFB Winnipeg WOs and Sr NCOs Mess for a luncheon and discussion. Dental representation was by WO DC Hughes, WO JB Arsenault and Sgt N Demedash ... Maj IW Susser briefed the dental hygiene students at the University of Manitoba on the CFDS Preventive Dentistry Program ... Maj RJ Paturel has been appointed vice-chairman of the Shilo Country Club ... Cpl CH Forsythe is the newly elected public relations officer for the CFB Portage la Prairie Corporals' Club ... Capt Holland has been appointed the CFB Penhold radiation officer ... Capt RCA Fearon attended a clinical hypnosis seminar at his own expense in Saskatoon.

Winter Woes

The severe cold of the prairie winter was felt by all unit members. One hardship report was from Capt Fearon at CFS Alask - the water main froze, leaving his household completely dry - once for a five-day stretch ... Maj RH Headley reported that mukluks and windpants were the dress of the day in the clinic at Currie Barracks in Calgary for most of

January and February ... And then there was Col LR Pierce, our commanding officer, who froze his banana waiting for a ride to work one cold January day (the remainder of his lunch survived) ... However, we did have some chickens in the outfit - a few affluent members who escaped the winter cold to distant warmer places: Cpl Williams to Germany; Mrs Less to Florida; Capt JR Burns, Capt WEJ Nind and Cpl Tallack to England; Maj IW Susser to Acapulco; WO HD Wagstaff to Tijuana; LCol JJN Wright to Mexico City; Capt NS Misura to California ...

Cold Lake Carnival



The Polar Carnival, 19-26 February, was a great success. CFB Cold Lake dental detachment's contribution was providing one of the four princesses, Cpl(W) SE Green (second from right), and numerous candidates for the Beard Growing contest. WO G Shechosky was among the bearded finalists.

Retirement

A farewell party was held by the CFB Cold Lake detachment on the occasion of Sgt TR Kukurudzjak's release from the Forces. Tom has accepted a position with Denco of Canada in Toronto.

Sports

Maj WR Collier's rink of Sgt HE Ayerst, Cpl DH McKay and Cpl RF Abfalter won the C Event in the Men's Curling Bonspiel at CFB Edmonton ... Gerry Shand successfully skipped a dental rink to victory at the CFB Cold Lake mixed dental/medical curling bonspiel.

One DENTAL EQUIPMENT DEPOT

by Lieutenant R.J. Rutledge

Hues are News

Offices and repair section are now beautifully painted in bright colours. It is regretted that this page of the Quarterly cannot reflect our "golden corridors".

Operation FISH

Stout hearted and well padded men of 1 DED moved off during the dawn hours of 17 March on an ice fishing derby ... Setting up a home base in Clarence Bolt's cottage on Mink Lake was the first task in 20 below zero weather ... We had a glut of log choppers and coffee makers ... A concentrated attack on the elusive pike and perch was spearheaded by Clarence's souped up snowmobile cruising at sub-sonic speeds ... It wasn't long before the military took over ... WO George Wadden acted as a long range scout and moved off to the far side of an island while the remainder of the troops, ice augers at the ready, started to dig holes ... This is where MWO Ernie Everett came into his own ... Lt Bob Rutledge started catching fish while Ernie dug holes ... Cpl Ray Duffield, checking the quality of Ernie's holes, captured the first pike of the day ... Meanwhile, Sgt Paul Dumas, having little success in his own sector, moved cautiously about to survey other peoples' ground and met with success at every hole ... Hot rations for lunch back at home base relieved the chill but not the fever of excitement that was building up ... As Ernie continued to bore holes through four feet of ice, he neglected to finish a three-foot hole started before lunch ... Not to be delayed by digging, Clarence tried desperately to make this three-foot hole produce during the afternoon ... WO Wally Chaulk, using his Newfie Tactics fishing method, which had already produced three fine pike, soon solved the problem ... Lt Bob Rutledge easily earned the Depot's ice fishing trophy as he had the longest arms for

describing his catch ... WO George Wadden won a bottle of vodka because he brushed his teeth after lunch and we didn't want to encourage bad breath ... Then of course there was a necktie for a prize ... Sgt Paul Dumas deserved it ... He must have chosen it with the same blind faith he has in ice fishing ... That fighting Irishman, Sgt Paddy Harkin was the big winner of some fishing tackle ... he needs all the help he can get ... And last but not least of the winners, so that he could share in all of his endeavours, MWO Ernie Everett won a supply of beer mugs ... The day was an excellent outing ... Enough fish were caught for a fish fry ... So with dusk settling in the west, our fishing expedition 1972 ended happily ... Did someone remember to tell Clarence it's all over? ...

Thirty-Five FIELD DENTAL UNIT

by Sergeant W.B. Looker

This'n't that

It's carnival time in Baden and the dental detachment has left its mark. Maj Emmett Foley helped represent the Officers' Mess on the tug-of-war team and Capt Bill Grey skipped a curling team for the same organization. Tom Deloughery and Bob Wormington played hockey for the Sgts' Mess, and it's reported that Peggy Mahlitz entered the snowshoe race. This was a rather exceptional feat as there has been no snow to speak of in the Baden area all winter ... Bob Wormington and family have just returned from a holiday which took them to Scotland and England and then over to Northern Ireland and Eire. According to Bob this is the first time in his military career he has been on leave in a combat zone ... Sgt Bryan Looker has been appointed president of the Canadian Forces Europe Amateur Radio Club in Lahr. He is active in all bands and may be heard coming out of Europe (on 15 and 20) as DA2 XL. It would be

interesting to find out if there are any other active CFDS hams. If there are, drop Bryan a QSL card.

Sports

On 17 December the clinic at Baden hosted the annual 35 Field Dental Unit curling bonspiel. The Lahr end won the overall bonspiel; however, the most important game - the grudge match - was won by the Baden rink. Maj Emmett Foley, Cpts Dave Morrow and Bill Grey and Cpl Jerry Lamontagne accepted the Horse's Head while LCol Donely accepted the Other End ... Still on curling, Sgt (W) Bev Gilkes represented 35 FDU at the annual CFDS bonspiel in Borden and was on the team winning C Event for the WOs and Sr NCOs Trophy.

DENTAL SERVICES School

by Warrant Officer P.D. Peterson

On the Road

Col LG Craigie was in Washington DC 16-20 February for discussions with the staff of the National Institute of Health (US Department of Health, Education and Welfare), on the expanded duties of dental auxiliaries.

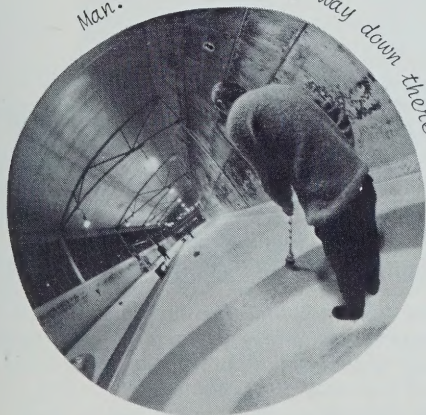
Away from it all

Usually as the latter part of February or the first part of March rolls around our thoughts turn to warmer climates and we feel the urge to get away from the numbing cold and the snow shovel (for those of us without snow blowers or gullible wives). To this end, two of the staff at CFDS who were wise enough to accumulate their leave, left the country. MWO George Bradley went the farthest to escape the cold by travelling all the way to Cyprus to vacation in that hot spot by the cool Mediterranean. We wonder if his choice was made on the basis of climate. During the same period, MWO Earle Mazerall travelled to South Carolina to sneak in a little early golfing.

We at the School extend our best wishes to CWO Bill Morris for a continued successful recovery from open heart surgery at NDMC in Ottawa.



Put a little curve on it!



Man! That's a long way down there!



Now that's what I call good curling action.

Thirteen DENTAL UNIT

by Sergeant E.S. Beattie

The Wheat ...

Col WR Thompson and MWO RG Hopkins made a flying visit to CFS Moosonee via Buffalo aircraft. A new motor chair was installed, other equipment inspected and repaired. While there, Col Thompson visited Moose Factory Island in an over-snow Nodwell. The flight home was probably a much smoother ride ... The CFS Moosonee dental detachment was inspected by the Commander, Air Defence Command,

MGen NL Magnusson, at the end of January ... Maj BW Yates reports that CFS Lowther is now 95% red coded and 5% blue coded in the preventive dentistry program ... Capt BLP Hart says RMC cadets had a 100% turnout for the January brush-in ... While on leave, Capt Hart attended a short course in paedontic and endodontic procedures at the University of Western Ontario ... LCol WW Anglin at Base Trenton reported that of 250 people eligible in January for Phase I treatment, 325 or 130% showed up; and in February, 266 or 102.3% of 260 eligible people reported for treatment ... Capt RJ Shirkey attended a drug seminar sponsored by Base Toronto ... Capt RS Haines attended a course in pathology in the post-graduate program at the University of Toronto Dental School ...



The Minister of National Defence visits Canadian Forces Base Trenton. Col DS Paisley, Base Commander and the Honourable EJ Benson with senior NCOs of 13 Dental Unit, Sgt ES Beattie, MWO VR Kidd and WO SH Lunmin in the CFB Trenton WOs and Sgts Mess.

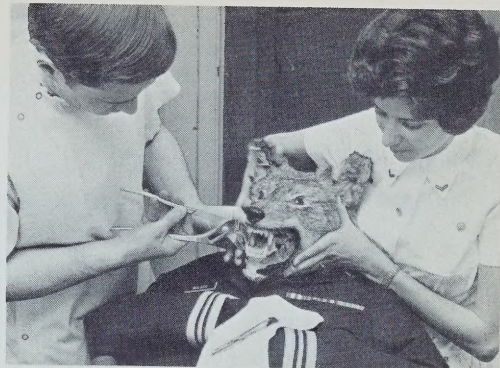
and the CHAFF ...

Major BW Yates was appointed acting commanding officer of CFS Moosonee while the CO was on leave - a dental first? ... Sgt NL Highfield, on the Middleton Park Community Council, is responsible for all youth activities ... Capt RI Stammers returned well-tanned from his holiday in Antigua ... Sgt RW Danyluck won first prize in the Base Kingston Sgts' Mess amateur contest ... Cpl JE Thompson is enrolled at St Lawrence Community College in the educational

media technology course ... Maj H Griesbach passed the Base North Bay French language course with an 82% average ... Cold weather caused severe repercussions in the North Bay clinic. Several water pipes burst in the hospital. A pipe that burst in the dental clinic was not discovered until the ceiling fell down in the kitchen below while patients were gathering for supper ... Mrs J Deschamps of the Kingston detachment visited Dallas during holidays in February ... Mrs PJ Rutherford spent a short time in hospital for a juvenile affliction - tonsils.



The Lunnin twins, Judy and Joan, past members of the CFB Trenton "Up The People" Sing-Out Group, recently sang a duet as part of the Spice-O'-Life Benefit Variety Show for the Retarded Childrens Association of Trenton, Brighton and district.

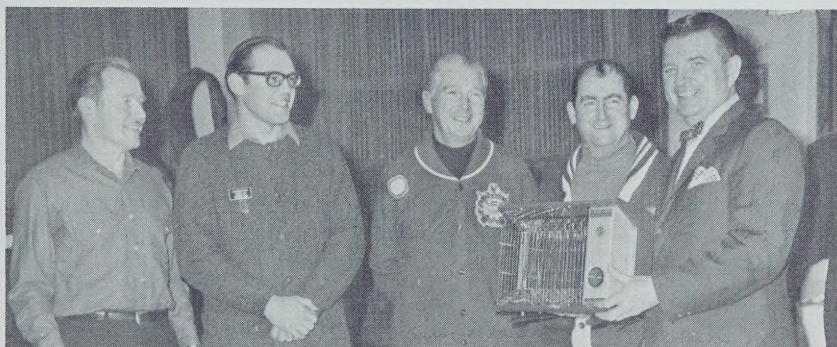


Capt Ron Haines and Pte Marg Williams doing surgery on a rather unusual patient at CFB Toronto clinic. The problem was not so much his bad breath as the fact that one of our assistants is missing. (Has anyone seen Cpl Doug Morphet???) (Cdn Forces photo)

The Sporting Life

The 13 Dental Unit rink skipped by Capt WJ Percival with Capt DK MacKenzie, Col WR Thompson and Capt MS Bouris swept their way to The Wansbrough Trophy in winning A Event in the Tenth Annual CFDS Bonspiel ... The rink which won the C Event for the WOs and Sr NCOs Trophy was made up of Mr Red Palmer with Sgt (W)VH Swiatkevich, Cpl RW Millin and Sgt(W)BA Gilkes ... Two rinks representing the Base Toronto clinic in the intersection bonspiel received prizes for their efforts ... In the Base Toronto WOs and

Sgts Bonspiel, WO RJ Lowery was on the rink winning the A Event and Sgt ML Mac-kie was on the rink winning the B Event ... Capt DB Smith won a position on the Zone 5 ski team which took part in the Canadian Forces Championship meet at Valcartier. Lack of training kept them out of the trophy circle. Capt Smith placed 21st in the giant slalom and 25th in the slalom out of 86 competitors ... Capt DK MacKenzie was selected as one of an 8-man team which participated in an invitational squash tournament in Hali-



Col DS Nicholson, Deputy Base Commander at Petawawa, presents the prize to the runners-up of D Event in the Centennial + Five Bonspiel. WO JE Clarke's rink skipped by LCol GE Windsor with lead played by Capt A Kohuch of 1 CMED, Maj GR Nye second and WO Clarke third, was the only Petawawa entry to reach the winner's circle in the sixty-four rink competition. (DND Photo)

fax. They received plenty of exercise but no silver. A return match is arranged to take place at Trenton ... Sgt NL Highfield officiated at a Region A basketball tournament at Base Kingston ... MCpl GE Sykes is busy forming a sport parachute club at Base North Bay ... LCol GE Windsor holds the high triple (829) in the Base Petawawa Mixed Bowling League ... Lt LR Hatcher and family travelled by bus with the Batawa Ski Club to Mount Tremblant PQ where they spent part of their leave skiing ... Maj IAC MacDonald, WO RE Todd and Sgt RW Danyluck now have secondary duties with the Kingston Garrison Golf Club.

Tin Cans, Rice & Old Shoes

Wedding bells will ring this year for Cpl DJ Morphet and three of our female dental assistants. Cpl Morphet is marrying Jane Lancaster on 22 April. The three blushing brides are Sgt (W) VH Swiatkevich, being married on 15 July to WO Fernand Bigrof, an instructor at the fire fighter school at Base Borden; Pte (W) VR Pafford who is to marry Pte Philip Stephen Moodie, a fire fighter at Base Trenton on 9 September and Pte (W) MR Williams who plans to marry Cpl Rich-Ellsworth also on 9 September. Cpl Ellsworth is at sea on HMCS Saguenay at present.



MWO McFadden, BGen Evans and Maj McDermott



WO Brown, MWO McFadden, BGen Evans, Sgt Marchwort and Sgt Tremblay

One DENTAL UNIT

*by Master Warrant Officer
E.E. McFadden, CD*

Laboratory Opening

BGen Garth C Evans opened the new lab facilities at the CFHQ clinic on 21 February. The new lab is located on the sixth floor of 100 Gloucester Street in Ottawa.

The lab is air-conditioned and has a heavy-duty suction unit and an exhaust system for the boil-out, burn-out and acid pickling areas. A dust free room for ceramco (porcelain) and pyroplast

and an office area complete with supply cupboards are also contained in the lab. Boil-out and plaster benches have stainless steel surfaces. Other benches are covered with material resistant to acids, alkalies and solvents. The lab is equipped to produce prosthetics in all fields including ticonium, porcelain, pyroplast and orthodontics.

Out of Sight

Once again personnel of the unit are on the move: Cpts Jackson and Spencer to Acapulco in January, Capt and Mrs Dessereault in February ... Mrs McNamee and her husband to Guadalajara ... Maj and Mrs Budzinski to Greece ... Maj and Mrs Cyrenne to the French Alps for skiing ... MWO Colleen Torrens to Bermuda.

Unit Curling

With curling over for another winter, we can look back on a successful season highlighted by an all-day bonspiel at CFB Uplands on 24 March. Some 32 curlers were there.

Winning Rink: MWO Sullivan, Cpl Gayler, (BGen Evans), Sgt Boulainne, Maj Wood



Runner-Up Rink: (BGen Evans), Sgt Patterson, Sgt Cote, Capt Gibbs, Sgt Tremblay



Twelve **DENTAL UNIT**

by Lieutenant D.E. Fraser

Items of Interest

Maj MN Deyette visited the unit 18-23 January. All officers in the unit had

an opportunity to speak with their career manager but it sounds as though many of them will have to make up with their neighbours because they can expect at least one more year in their present locations.

Capt Mal Blasetti put his sound organizational and supervisory abilities to good use recently as committee chairman for "Tough Chough 2" the CFB Cornwallis winter carnival 24-26 February ... Mem-



Maj GD Petrie received his certificate for a course in oral pathology, 3-7 January, from Capt WC Wohlfarth, Jr, CO Naval Dental School, Bethesda, Maryland.

bers of the Gagetown dental clinic were surprised to find some dentures and other dental items suspended in ice one morning then the heating plant failed to operate at the Base. The dentures were left overnight in a pot of water which froze ... CFB Greenwood CE Section provided some very good cooperation recently when WO Duve went to that base to temporarily relocate the dental clinic. Maj Tilley, the base CE officer provided the old accounts building for WO Duve to set up the dental clinic while the new clinic is being constructed ... Lt Bill Jackson and two other scuba divers from CFB Cornwallis recovered the body of a nine-year-old boy who had fallen into the Meteghan River on 10 February

while he and two other friends attempted to rescue a trapped duck. With a fast current, 25°F water and 12°F air temperature, recovery wasn't easy ... On 24 March, Col SG Bagnall and local unit members of CFB Halifax gathered to say farewell to Pte Pat King who goes to CFS Holberg, and to welcome Pte(W) MG Boivin as Pte King's replacement.

Sports

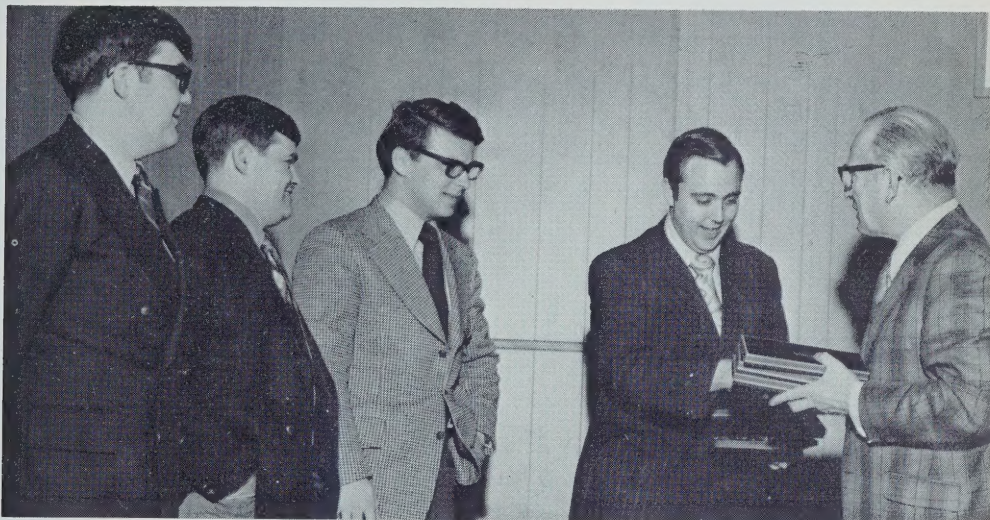
Cpts Cote and Simoneau played hockey for the Gagetown Warriors in the Zone 7 hockey playdowns ... Due to weather conditions, 12 Dental Unit was unable to compete for the coveted trophies in the Tenth Annual CFDS Bonspiel in Borden. An E for Effort must be extended to Professor BP Kearney, LCol AG Andrews and Major NH Andrews for their tireless attempt to make Borden before the bonspiel ended. It is understood the trio reached Borden somewhere between the presentations and bedtime ... Lt Dan Fraser, together with Capt D MacKenzie from CFB Trenton, were in an invitational squash tournament 11 March ... they didn't win any events but picked up some valuable experience ... Participants in the Atlantic Provinces Open Squash Tournament 7-9 April included Capt Cliff Murray, Capt Ed MacInnis and Lt Dan Fraser. Although the event took place on a weekend, it is rumoured that the three members will have to work extra hours because of their poor showing in the tournament.

Unit Bonspiel



The elaborate and priceless trophy which signifies pre-eminence among 12 Dental Unit curlers was presented to the A Event winners - Capt Bowes, Capt Delong, Maj Meisner and the skip, Sgt Whynott. Col Bagnall presented the trophy.

CFB Cornwallis was the site of the unit bonspiel held 20-21 January. Ten rinks participated with team entries from Halifax, Gaagetown and Cornwallis areas and individual curlers from as far away as CFB Summerside. The three-event program was followed by a banquet during which the trophies and prizes were presented. Although some may question whether or not the most deserving teams took home the prizes, there is no doubt that the bonspiel was an enjoyable occasion. Most of the credit for this goes to the chairman, Lt Bill Jackson and his committee.



B Event and the "Halifax Repair Section Trophy" was won by another Cornwallis rink skipped by Mal Blasetti, who completely confounded his opponents with his unorthodox delivery. (L to R) Cpl James- Sgt MacDonald, Capt Salois, Capt Blasetti with LCol Hillier presenting the trophy.



C Event, which does not yet boast a trophy - (your committee would be pleased to assign the title "Dental Plaque" to a suitable award) - was won by Col Bagnall who carried Cpl Ches Shave, Lt Dan Fraser and Major Jim Jolly to victory. LCol Cobb presented the non-trophies.

Eleven DENTAL UNIT

by Sergeant R.S. Walker, CD

Unit Dental Officers Conference

All dental officers attended a unit

conference 25-28 January at CFB Comox. LCol PS Sills from CFDS was guest speaker and presented several papers on partial and full denture prosthesis. Capt EM Lobb, CFB Edmonton supply officer, spoke on dental stores and doubled as secretary. Col Nichols, CFB Comox base commander addressed the group at the commencement of the conference. This is the second such conference held by this unit.



(Left to right) Seated: Maj JCE McDonald, LCol PS Sills, LCol NA Butcher, LCol DH Protheroe. Standing, second row: Capt BP Schow, Capt JC Steel, Capt DE Watson, Maj JL McNeill, Capt PF Stirling, Maj AG Taylor, Maj JF Eadon. Third row: Capt KHE Rosengart, Capt DF Graham, Capt RJ Fennell, Capt ED Cragg, Capt FR Margetts, Capt TJ Erskine, Capt PE Arnold, Capt EM Lobb.

Fitter ... and Fitter

Sgt Dick Gratton and WO Peter Sprathoff were presented with BC Centennial Fitness Medals in January for their 25-mile swims ... LCol Norm Butcher and Capt Jim Fennell were also recipients of Centennial Medals but for the 100-mile run.

In Hospital

Sgt Tony Fox underwent open heart surgery at NDMC in Ottawa 13 March. At this writing, Tony is doing very well.

The Small Ball

Reports from CFB Chilliwack indicate that all personnel there but one are out on the links at every opportunity in preparation for the annual CFDS tournament ... The Victoria golfers have only missed about one month this year due to inclement weather. Sgt Dick Walker managed to win first and second low net in February and March respectively at the monthly CFGA tournaments ... This looks like we'll have strong representation at Trenton in September.

Professional Training

US Armed Forces Institute of Pathology, Washington DC

Oral Pathology, 6-10 March

Major JT Jacques

US Naval Dental School, Bethesda, Md

Oral Pathology, 3-7 January

Major GD Petrie

Canadian Forces Training

Canadian Forces Dental Services School, CFB Borden

Clinical Removable Partial Denture, 5-26 April

Cpts JS Duchene, JAM Fortier, JC Steel, M Simoneau, JRL Salois, DE Watson

Dental Laboratory Technician PL6A, 19 January-26 March

MCpls GM Anderson, GG Hildebrandt, JA Likins, TH Taylor, Cpls MM Arbour, JB Butson, JM Walker, Sgt A Schuh.

Dental Equipment Maintenance Technician PL6A, 28 March-21 April

Sgt BA Green, Cpls LJ Kallman, CC Shave, JL Violette, JA Wedey, AM Wilson

Canadian Forces School of Communications-Electrical Engineering, CFB Kingston

POET 7203 Course, 31 January-24 March

Sgt BA Green, Cpls LJ Kallman, CC Shave, JL Violette, JA Wedey, AM Wilson

Canadian Forces School of Instructional Technique, CFB Borden

Instructional Technique 1

Sgt LH Pion

31 January-16 February

Sgt A Busse

21 February-8 March

WO A Atherton

12-26 April

Instructional Technique 2

WO PD Peterson

31 January-11 February

Sgt RK Delmage

21 February-3 March

Capt TA Bradley

7-21 April

Instructional Technique 3

MWO MO McDonald

21 February-17 March

Canadian Forces Airborne Centre, CFB Edmonton

Basic Parachutist, 28 February-19 March

Capt KM Morley, WO PD Peterson

Canadian Forces School of Management, CFB Montreal

Advanced Management, 5-23 March

Major RG Peebles

Canadian Forces Language School, CFB St Jean

French Language, 10 January-15 April

Cpl GL Brophy

Banff School of Fine Arts

French Language, 6-24 March

LCol JJN Wright

Promotions

Major

JJ Jacques, BW Yates, GRJ Pinsonneault

Sergeant

WK Jenereaux

Welcome to the Dental Services

A cordial welcome to the Dental Services is extended to: Mrs Clarisse Couture, Miss D Higgins, Mrs M Hudson, Pte(W) MG Boivin, Mrs SJ Dzioba.

Retirements and Releases

Farewell and good luck to: Dr CGB Grant, Mrs Grace McNair, Dr HPG Guevremont, Dr WA Sugars, Sgt TR Kukurudziak, Miss Carol Robertson, Capt WJ Percival, Pte H Snutch, Maj JE Joubert, Pte PD Young, Sgt M TRemblay, Sgt JR Roy, Capt DA Devine.

Vital Statistics

Marriages

Congratulations and many years of happiness to Miss Helen MacDonald and Cpl GW Bowman.

Births

Congratulations and may the next ones be octuplicates:

Sons: Cpl and Mrs EA Morin, Capt and Mrs HW Wilford, Cpl and Mrs T Mountain, Cpl and Mrs JA Muir (TWINS!), Capt and Mrs GC Post, Cpl and Mrs W Cudmore, Capt and Mrs CJ Sharpe, Capt and Mrs JR Savoie, Cpl and Mrs G Porteous, Capt and Mrs D Stewart, Cpl and Mrs F Boosamara, Capt and Mrs WA MacInnis

Daughters: Capt and Mrs DL Brown, Capt and Mrs JR Cote, Maj and Mrs FC Arpin, Capt and Mrs EF Sasse, Sgt and Mrs A Pink.

Bereavements

Deepest sympathy is extended to: Col WR Thompson, Cpl LC Street, Maj RH Headley and Capt EL MacInnis on the loss of their fathers and to Cpl KLM Davis on the loss of his brother.

Nugatory Cerebrations

The following words and phrases were extracted from various pieces of printed matter that have recently crossed the editor's desk. A prize of a strong recommendation for staff and/or management training is offered to the reader who can prepare a statement making maximum use of the words contained in this list.

ongoing dialogue
optimally pleasing
pre-empted
diachromolated incapacitation
financial constraints
self-actualizing
positive incentives
prosthetist
upward mobility
reverse upward trend
true facts
suboptimize performance of
 individual functions
optimization of overall system
 performance
adverse world power
input segment
additive autocorrelation model
optimal values of parameters
multiple regression model
manipulation of constraints
unmoved invariants
cost depends on price
conceptualization of costs
objectively measureable
 objectives
inbuilt range
extrospective analysis

virtual consensus
ablated
mandibular oral prosthesis
response variables
job satisfaction criteria
internally mediated
clearly identifiable referant
organizational rewards
nonqualifyable disutilities
trenchant observations
positive steps
maximization of goals
optimizing total system performance
ablation of exostosis that pre-empt
 denture space
facilitating activities
co-ordinative activities
smoothing constants
multiplicative autocorrelation model
actuarial manpower model
unmoved movers
human cognitive processes
cost effectiveness calculus
criterion vector
cartelizing propensity
rhochrematics
consultation barrier
disjointed incrementalism

Examples

An additive autocorrelation model for predicting the number of applicants was examined. The model contains three smoothing constants (for trend, average level and seasonal indices). A search was carried out in the "smoothing constant space" to determine optimal values of these parameters. A multiplicative autocorrelation model and a multiple regression model will now be examined.

A decision is required that will place emphasis upon maximization of the goals of the Canadian Forces, thus optimizing the total overall system performance and avoid suboptimization of the performance of individual functions. This concept requires the establishment of an organizational structure to ensure managerial and technical integration. It is not likely to be implemented without organizational co-operation effectuated through managerial processes.

'A bunch of the boys ...'



This picture was taken of the majority of the dental technicians of Headquarters Laboratory, 1 Company, somewhere near the Adriatic.

(L to R) Kneeling: Sgt Nick Senyk, Sgt Ed Ellis, Sgt Chuck Jewson.

Standing: Pte Moran, Pte Ed Comeau, Sgt Newsy Lalonde, Sgt Dave Mills, Sgt Jack Champoux. Standing alone: QMS(WO2) Roy Owens.

Italy. January 1945.

Dent

The

CANADIAN FORCES DENTAL SERVICES *Quarterly*

VOLUME THIRTEEN • NUMBER TWO • JULY 1972 •





The CFDS Quarterly

· VOLUME 13 · NUMBER 2 · JULY 1972 ·



Published by authority of Brigadier-General Garth C Evans, CD, DDS, QHDS, FICD, in April, July, October and January, The Quarterly serves as a means for the exchange of ideas, experiences and information within the Canadian Forces Dental Services. Views and opinions expressed are those of the authors and not necessarily those of the Director General of Dental Services or the Department of National Defence.

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Cover Photo

*It used to be "Brew up some tea" -
But now it's "Let's do Preventive
Dentistry"*

(See Page 11)

The CFDS Quarterly may be subscribed for at \$6.00 per year by writing to:

The Director General of Dental Services,
Canadian Forces Headquarters,
Department of National Defence,
Ottawa, Ontario, Canada.
K1A 0K2.

CLINICIANS AT CDA CONVENTION

On 6 June 1972 the Canadian Forces Dental Services presented a day of continuing education at the Canadian Dental Association annual convention held in Montreal at the Hotel Bonaventure.

The purpose of the program was to offer a professional scientific contribution to the national dental convention and permit an opportunity to exchange knowledge with civilian counterparts and to introduce the military approach to the management of oral disease.

The CFDS preventive dentistry exhibit was displayed and manned during the convention.

Colonel SW Thompson, Command Dental Officer for Ontario Region and Oral Surgeon at the Canadian Forces Hospital, Kingston, presented a topic in oral surgery dealing with treatment planning, surgical procedures and complications in the removal of impactions and post-surgical considerations.



Lieutenant-Colonel AG Andrews, Base Dental Officer at CFB Halifax and lecturer in oral surgery at Dalhousie University discussed the physiology of organic and psychic pain and current methods of control in oral surgery.

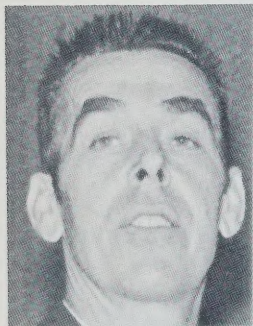
Lieutenant-Colonel PS Sills, chief instructor and head of prosthodontics at the Canadian Forces Dental Services School, CFB Borden, discussed a simplified method of designing removable partial dentures with consideration of surveying principles, guiding planes, choice of support, bracing and retentive elements, and a new approach for methods of tooth attachments, base design and ridge support that encourage natural teeth and ridge preservation, oral hygiene and dimensional stability of the prosthesis.



Major AG Taylor, Base Dental Officer at CFB Chilliwack, reported the findings of a dental survey of the inhabitants of Easter Island which he undertook in conjunction with the "Medical Expedition to Easter Island" in 1964. He presented the results of the survey in a lecture illustrated with colour slides.



Lieutenant-Colonel JJN Wright, Base Dental Officer, CFB Cold Lake, Alberta, lectured on oral pathology and presented a series of clinical cases illustrated by colour slides and in which the features and differential diagnosis of each case was presented. He stressed the need for the dental practitioner to maintain a high knowledge level in the field of clinical oral pathology.



Major LA Reynolds, periodontist at the Canadian Forces Dental Services School, emphasized the biologic and preventive principles used in periodontal case management. Causative factors were reviewed and the methods of control of gingivitis and periodontitis were presented. The need for patient motivation and plaque control for a successful surgical procedure was discussed as were the various techniques employed as a means of pocket elimination.

Major N.H. Andrews, periodontist at CFB Halifax and an instructor in periodontics at Dalhousie University, used slides to illustrate his presentation which was designed to acquaint the dental practitioner with the fundamentals of current periodontology and the clinical application and integration of periodontics into modern comprehensive dental practice. Emphasis was placed on the role played by bacterial plaque in etiology of disease and its control as a preventive measure.



Major JF Begin, Preventive Dentistry Officer at the Canadian Forces Dental Services School, discussed military dentistry relative to the CFDS preventive dentistry program, relating needs, demands, manpower and resources. The use of recent advances in knowledge of plaque formation and its relation to a program was discussed as were the communication aspects with respect to teaching, learning and motivation.

Major JO Bourget, instructor in postgraduate procedures in restorative dentistry and fixed prosthesis at the Canadian Forces Dental Services School, CFB Borden, presented a lecture on pulpal biology and discussed the anatomy and etiology of inflammation of the dental organ, the type of irritants encountered, the result of a cumulative effect of irritants and the pulpal healing process.



Major JH Marion, orthodontist at CFB Cold Lake discussed chronological stages in the occlusal development which the practitioner can clinically identify and which may be used to evaluate an occlusion. He discussed also the recognition of dental irregularities and orthodontic treatment procedures.



Chief Warrant Officer JH Sadler, Therapist Instructor at the Canadian Forces Dental Services School demonstrated a restoration insertion and provided a description of the training and duties required of a Canadian Forces dental therapist. This was of particular interest to the civilian dentists due to the current interest in employment of auxiliaries in expanded roles.

WHY PREVENTIVE DENTISTRY?

CAPTAIN G. GUNTHER, CD, DDS.

For years we have been repairing the ravages of dental disease with ever increasing technical skill, yet at the same time we have been getting further and further behind. Realistically we have made little progress in our efforts to control dental disease and our patients are frustrated with our continuous "drilling, filling and billing". They have become disillusioned with our constantly admonishing them for improper use of the toothbrush - we have been disheartened by their poor efforts in maintaining a healthy mouth. Isn't this the disappointing link in our treatment chain?

Would it not be more rewarding to be able to maintain healthy mouths than to be continuously repairing diseased ones? Since we know the prime cause, our weak link must be the controlling mechanism itself.

We treated polio but were unable to control it until a vaccine was found.

We treated TB victims - even opened special hospitals for them - but were only able to control the disease by preventing dissemination of the organism. Now we treat cancer but as yet we cannot control it because the cause is unknown. How many hours were expended in treatment of a disease before control?

The bacterial involvement in dental disease is a well established fact. If we consider the non-infected tooth (plaque free) we know that within a 24 hour period a poorly organized gelatinous mass which is 70% bacteria will form just above and slightly below the gingival margin.

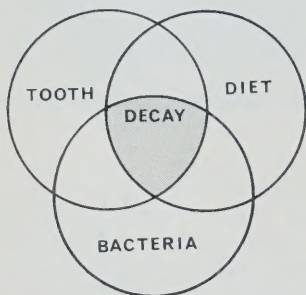
Some of this complex microbiota will split the glucose molecule into dextrans, which makes the mass adhere to the tooth, and levans, which when acted upon by bacteria, will produce acid that will decalcify enamel.

Other strains will lower the pH to make the environment more conducive for this process. Still others will attack the gingival margin and cause inflammation there.

If just once a day a patient could remove this bacterial plaque or at least disorganize it, it has been shown that he would delay or stop or even reverse the destruction which has taken place. The teeth would remineralize; the gingival margin would heal itself.

If the patient does not remove the cause of this destruction, the inevitable will result and make further and more complex work for the dentist. By neglecting to demonstrate to the patient the benefits of preventing disease the dentist ignores the cause, treats the effect (signs and symptoms) and perpetuates the hypocrisy.

There are three elements involved in the control of plaque: tooth, diet and bacteria.



Removing any one of these arrests the progress of decay and periodontal disease.

Anyone can readily see that removal of the tooth is one solution to the problem, but it is also the initiator of many others. Removal of fermentable carbohydrates from the diet has the same effect, but the patient must eat and carbohydrate is one of the major constituents of his diet. Removal of the bacterial plaque is possible, necessary and if carried out carefully once a day, is a proven method of eliminating the problem.

Before "The Pill", controlling unwanted pregnancies was a difficult task requiring professional guidance and constant effort by the patient - but it was possible. We don't have a pill to eliminate unwanted plaque, but we do have other methods of eliminating it - and it requires some effort on the part of the patient. Since the patient doesn't know that we can now help him to stop his dental disease, he is not going to ask for or be too receptive to change. Therefore, we must train him in plaque control and withhold reparative treatment until he demonstrates to us and to himself the marked change in his own mouth.

Several steps are necessary to accomplish this.

- The patient must be aware of the cause of dental disease.
- The patient must be interested in controlling it.
- The patient must become involved in controlling it.
- The patient must act repeatedly until a habit is formed.

During every operative procedure we perform we are injecting a foreign body into the system, from the smallest amalgam to the bridge, to the partial or complete denture, each progressing to a greater bacterial contaminant (retainer) in the mouth. If we are not able to train our patients with these appliances, they may be better off without them - just as they may be better off without periodontal surgery or even scaling. That lingual plate of calculus which has splinted the lower anteriors and has protected them from bacterial plaque for years is itself quite inert. If it is removed, bacterial plaque, which is far from inert, has a chance to form in this area. A definite change is effected through the practice of preventive dentistry. No longer can we close our eyes to the rough gingival margin which shreds floss, since the patient will tell us about it. No longer can we allow a patient to have gums that bleed, for we told him that the bleeding gums were the first sign of disease.

We must establish priorities of treatment which correspond directly with the patient's ability to control his own

disease - after all, we can't force perfect health on everyone.

- Treat emergency first.
- Institute prevention.
- Examine and select patients on merit basis.
- Treat - to a healthy condition.
- Delay definitive treatment and evaluate maintenance.

The professional partner (the dentist) in this preventive team must also change and accept a whole new philosophy of prevention rather than repair. Isn't this what it's really all about?

Presented at the Canadian Forces Dental Services Preventive Dentistry Symposium on 13 April 1972.

TWO-DIGIT SYSTEM OF DESIGNATING TEETH

At the FDI General Assembly in Bucharest Romania in 1970 the Council's Special Committee on uniform dental recording submitted a resolution proposing that the Two-Digit System of designating teeth should be adopted. Consequently at the 1971 annual meeting of the Board of Governors of the Canadian Dental Association the following resolution of the Council on Dental Services was adopted.

Resolved that corporate members be encouraged to recommend the use of the FDI "Two-Digit System".

The Two-Digit System was designed to comply with the following basic requirements.

- Simple to understand and to teach.
- Easy to pronounce in conversation and dictation.
- Readily communicable in print and by wire.

- Easy to translate into computer "input".
- Easily adaptable to standard charts used in general practice.

The first digit indicates the quadrant and the second digit the tooth within the quadrant. Quadrant numbers 1 to 4 indicate the permanent teeth and 5 to 8 indicate the deciduous teeth in clockwise sequence starting at the upper right quadrant. Teeth within the quadrant are allotted a second digit (1 to 8 for permanent teeth and 1 to 5 for deciduous teeth), numbered from the mid-line back; e.g., upper right permanent central incisor is number 11 whereas upper right deciduous central incisor is number 51.

This system is gradually gaining acceptance and the members of the dental profession are going to have to acquaint themselves with the system even though they may not adopt it for routine use in their daily practices.

Permanent Teeth

(upper right)							
18	17	16	15	14	13	12	11
48	47	46	45	44	43	42	41
(lower right)							

(upper left)							
21	22	23	24	25	26	27	28
31	32	33	34	35	36	37	38
(lower left)							

Deciduous Teeth

(upper right)
55 54 53 52 51
85 84 83 82 81
(lower right)

(upper left)
61 62 63 64 65
71 72 73 74 75
(lower left)

WHY AND HOW OF PLAQUE CONTROL

American Dental Association Bureau of Public Information News Release.

A new public statement on the "why" and "how" of plaque control in the prevention of dental disease has evolved from a conference of dental health authorities.

General dental practitioners and specialists as well as health educators and research workers met at American Dental Association headquarters to consider a common dental health message that could be addressed to the public.

Most at the conference agreed that a plaque control program could not guarantee the elimination of dental caries and periodontal disease but that it would result in significant control of these diseases.

A general consensus was reached on the role of plaque control, and the following lay-oriented statement reflects the current knowledge that was presented.

To help prevent dental decay and gum disease, bacterial plaque should be removed from all tooth surfaces a minimum of once a day. To do this thoroughly, use of dental floss and a toothbrush are necessary. For some people, more frequent plaque removal may be recommended by their dentist. Children and decay-prone adults should regularly use a fluoride toothpaste in addition to

drinking fluoridated water. The intake of sweets, particularly sweet snacks, should be limited.

It was agreed that prevention of dental disease requires the team work of the dentists and the patients. The full and informed participation of the patient, however, is absolutely necessary to control the day-to-day buildup of bacterial plaque.

The first action of the conference was to review what dental researchers have learned about dental plaque. It was agreed that bacterial plaque is an organized mass of microorganisms which adheres to teeth, and that the plaque is a primary factor in caries and periodontal disease. In terms that the public might better understand, plaque is a sticky, almost colourless film which forms continually on teeth and which leads to both decay and gum disease. It was suggested that the message to the public emphasize that plaque is bacterial, that it is constantly forming and that it is harmful.

There was considerable discussion about the frequency of brushing. Some said that a thorough disruption of plaque once in 24 hours is sufficient. Many others, concerned about caries, stated that frequent brushing with a fluoride dentifrice is necessary for children and caries-prone adults.

It was agreed that the long advocated

"brush up on the lowers, down on the uppers" is probably no longer appropriate. A simpler method should be recommended stressing *thorough* cleaning. A recommended manner of brushing would be back and forth strokes ranging from a short gentle scrub to a vibratory motion. It was believed that this technique could be taught more readily, would be easier to use and was perhaps more effective in cleaning the teeth at the gum line. For most people, a soft multi-tufted brush with round bristles should be used.

It was agreed that it was probably unwise to become too specific as to the amount of time to be spent in brushing and flossing, the number of strokes, etc. Rather, an "end result" measurement should be used, utilizing disclosing solutions to prove when all plaque was removed.

The group did not believe that there

was evidence to support either waxed or unwaxed dental floss as being superior. It was suggested that the public message simply emphasize the primary importance of using floss and leave the recommendation to the dentist based on the individual patient's needs.

It was agreed that mastering the skills of toothbrushing and flossing may be difficult for children in the younger age groups. Most agreed that flossing was the more difficult skill and that in general children did not perform it adequately until they were about age nine or ten. Until the child has demonstrated the ability to floss and brush effectively, the parents must assume the responsibility for plaque removal.

New ADA materials used for dental health education and public information will, in general, follow the recommendations of the conference.

Is Anybody Listening... or Thinking?

ERNEST T. GUY, CAE, EXECUTIVE DIRECTOR, CALIFORNIA DENTAL ASSOCIATION

We read and hear so much about communication nowadays that one might think it is something new. Nothing could be farther from the truth. Communication is as old as mankind. We can trace it all the way back to Adam and Eve. And we might use, as a first example of a breakdown in communication, Eve's failure to obey the Lord's order not to eat the apple. Even God had trouble with communication. And we all know why he had trouble - he was dealing with people!

Communication, it seems to me, has two phases. First, *The Intellectual*

Phase and second, *The Transmission Phase*. The Intellectual Phase involves thinking out or creating the message; the Transmission Phase involves the method used in delivering the message.

The Intellectual Phase requires THINKING both on the part of the sender and on the part of the receiver. The sender must think accurately to create the message whether it be a report, a request, an order, instructions as to policy, suggestions as to procedure, ideas, or whatever. He must choose proper language, proper words, clear rhetoric, correct punctuation and grammar. He must be comprehensive and yet concise.

When people understand each other - when the communication circuit is complete - there can be an exchange of

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ideas between them. Opinions and viewpoints can be shared, experiences can be passed on, new insights can be opened up, progress and improvement are possible. But for communication to be complete, for an idea to be transferred, there must also be a RECEIVER. He must first listen with his ear or read with his eye, and register the message in his mind. Then, he must think. He must be familiar with the language, he must know the meaning of the words, and he must be able to interpret the word picture in the message. Then, of course for communication to be effective, he must heed or act on it. Yes, skill in communication includes thinking, observing, talking, and listening. But thinking comes first because it is basic to all of the others.

Now, to the Transmission Phase or the delivery of the message. Before you start sending a message you should ask yourself, "IS ANYBODY LISTENING?" For without listening, which leads to understanding, there can be no communication. Most people are more skilled in speaking and in writing than they are in listening. This is not a statement which I ask you to accept on faith. It has been proved over and over again by specialists in the field of communication. Some industries have hired experts to train people to listen. Some schools offer courses in listening. Psychiatry is making great strides in the use of listening as a vital part of therapy. Listening is an important function of every group leader, of every chairman, of every officer and of every staff person. You must lend a willing ear when a member seeks you out and asks for a chance to "get something off his chest".

*Listening stimulates flow
of upward communication*

A realistic leader, when listening to others, should try to listen on the basis of what the member is saying and thinking rather than on the basis of what the leader thinks or wishes the member would say or think. Serious mistakes result when we assume that a certain set of facts will lead to the same conclusion in another person's mind as it does in ours. Unless one is willing to listen to the other side and change one's mind if the evidence calls for a

change, one might as well not listen at all. The leader who lends a sympathetic willing ear creates an atmosphere which stimulates and encourages an upward flow of communication from others in the group. When attitudes and feelings flow freely upward, one is better equipped to avert emergency situations.

Understanding and cooperation between you and your members depends, to a large degree, on the members' knowledge that they may express themselves and that their expressions will be welcome. In your work with individuals and committees there are a number of advantages to this upward communication. It provides people with an opportunity to release emotional tensions and pressures. Without such a safety valve, these emotional disturbances may find outlets in adverse criticisms, in loss of interest in the organization's work, and even withdrawal from the organization's projects entirely.

Before we go further however, it might be well if we arrive at some acceptable definition of communication. Just what is it anyway? Every person in this room would offer his own definition. We might end up with a dozen or more slightly different definitions. But it is fairly certain that all these definitions would have certain similarities, even though communication means different things to different people and at different times. One person has described communication as "a system of passing information from a transmitter (a person's brain) to a receiver (another person's brain) - hopefully without losing any meaning in the course of the transmission".

*Communication is process
of creating understanding*

If we define communication in the fewest and simplest words however, we might say that it is the creation of understanding. Let's elaborate a little. Specifically as communication affects our work, it is a two-way flow or interchange of information and thought in order to bring about understanding, acceptance and action. This of course means that there is sending, receiving and interpreting of messages. A word of caution - mere speaking or writing is not necessarily communication. Unless

someone clearly understands what we have said or what we have written, there is no communication. There merely has been a sending and not a receiving of a message.

It is reasonable to assume, I believe, that it is impossible not to communicate. We communicate all the time. If you walk into another person's office and say, "May I have a minute with you?" and he looks up with a frown, then he's gone a long way towards answering your question. Conversely, a smile and a nod of the head are equally good communication, without a word being spoken.

By now we've begun to see that communication is, in large measure, establishing and maintaining relationships with others. It is the continuing process of a personal, dynamic relationship with all people around us. Thus, we have no choice about communicating. We are already communicating whether we realize it or not. And we communicate, well or ill, depending upon our skills and our use of the art.

*Effective communication is
a key tool for leaders*

I would like to make clear also that communication is not "just something else" for you to do. It is already a part - and a most important part - of your working life. This is true of everyone in any organization, and it is especially true of the leadership involved. The job of a leader is to get things done through the work of others. Effective communication is one of the key tools that will help leaders accomplish the job.

As further evidence of the link between communication and understanding, we all know what an extremely difficult thing it is to transfer a single thought or a single fact from one mind to another. This is one of the hardest things any of us have to do - on our jobs, at home, in meetings, or under any other condition which brings people together. How often when something has gone wrong have you heard someone say, "I told that fellow exactly what to do. Now look at the mess he has made of it." When situations of this sort arise, it is often

hard to decide who really was at fault. The sender may have been at fault, rather than the receiver. The sender always knows what he means. Making it mean the same thing to the receiver is quite another matter. One thing is certain in such situations - something has caused the communication lines to get fouled up.

*Barriers to communication
are many and common*

The failure of people to understand one another is at the heart of many of our problems. When there is a communication failure in an office, what happens? What is at stake there? Misinformation is passed on, the instructions are misunderstood, the work has to be done over. Assignments have to be explained again, someone is criticized, feelings are hurt, tempers flare up, time is lost.

At this point we might well ask what are some of the common barriers to communication? We live in a world of words. The degree to which you can communicate successfully with other people affects the working of your whole organization. But the same language with which we gain understanding can often lead to the opposite results. Sometimes our talk ends in disagreement, antagonism and conflict. Instead of clarification, we get confusion and misinterpretation. Instead of exchanging ideas, we argue about them. If we look closely at the kind of verbal activity that goes on around us on our job, perhaps we can discover some of the things that are barriers to communication. We will have to look beyond language itself to the way language is used. We will have to look at people, not just at words. We will have to examine their ways of talking, listening, and thinking, we'll have to examine their language habits.

*Overcoming the hazard of
geographical dispersion*

Our worst enemy is our own indifference and negligence. Our language, too, is our own, not a code; our methods of transmitting messages are only those that are familiar to us. These are the telephone, the telegraph, the mails, letters by special messenger, radio and

television, person-to-person conversation, and a verbal message sent by a third party. I mention this last method only to condemn it. It is unreliable, too fraught with danger of being misquoted or of being misinterpreted, to have any part in good communications. I imagine most of you, at one time or another, have played a game in which a sender whispers a message into the ear of a messenger who stands at the head of a long line of messengers. The first messenger whispers what he heard into the ear of the second in line, and so in turn each whispers what he heard in the ear of the next in line. Invariably, the receiver at the far end of the line receives only a jumbled jargon of mumbles and hisses. The message was lost enroute; first only a word or two were missed, but with the loss of a word or two, the meaning of the message was lost, and the message became just words which soon lost their identity becoming mumbled sounds and hisses.

Some of the things that make the communication problem difficult are related to the geographical dispersion and volunteer nature of any organization. This simply means that when we communicate, the information may have to travel far. It may, and on many occasions does, pass through many hands or many heads. In so doing, the information can be easily lost, distorted or diluted. This means we all have a hard job of communicating, and we must make a determined effort to obtain the desired results.

One of the common barriers to communication is that posed in the whole realm of the emotions, and here we are treading on ground that is not firm but is very important. I am using the word emotions rather broadly to include all matters that deal with the way in which people feel about things, and the way in which people feel about each other. Human relations is another term that is currently used.

*The undercurrent of emotions
is a stumbling block*

We have several challenges in dealing with emotions because we are finally coming around to face the undeniable fact that we do have emotions on the job, in the office and at home, and that these

emotions and what they do to us affect us a great deal. For a long time there was a fiction that the business executive left his emotions at home, that he came to the job and used pure reason. Emotions such as anger, jealousy, love, hate - why, these just didn't belong in the business world. I say fiction, because of course there is not a single normal person who does not have all of these emotions. They appear in a variety of ranges and somehow or other we have to be alert to their presence and their operation.

Let's look briefly at some of the communication barriers involving leaders. Unless he is careful to avoid it, a leader may set up a barrier between himself and others by showing annoyance or distress because of a subject under discussion. Very often - and this sets up a high barrier - a leader may fall into the familiar error of assuming that "no news is good news". Or he may assume, very wrongly, that he knows what people in his group or his organization feel or think.

Another common communication barrier involving the leader is that he may have a natural defensiveness about himself, about his ideas or his actions. Some may be inclined to resent or resist any kind of communication which indicates that some of their actions may have been less than perfect. Or he may think that listening to others consumes more time than it is worth; he is simply "too busy". In these situations it is ironical that very often, a little listening would lead to solutions of some time-consuming problems.

*Words are not the same to
all men*

Now, let's consider vocabulary and the possibility that it may pose another barrier. For example, men who work for credit bureaus have found that some customers did not know what was meant by "Your remittance was insufficient". The same customers responded however, and knew exactly what was meant by "You did not send enough money". It is important to reiterate that words mean different things and create different images in the minds of different individuals.

Finally, let's consider the informational vacuum. You have heard the old saying that "Nature abhors a vacuum". Using the weather as an example, a low-pressure area is soon filled with air moving in from areas of high pressure. In this way, winds are formed - sometimes winds of destructive force.

*Organizational disharmony
can be prevented*

People in voluntary organizations also abhor a vacuum. They simply will not allow one to exist any more than nature will. Unless members have the facts about a situation, they will start rumours. Once rumours are established, they become very hard to displace with facts. The results of these rumours, as we can recall from experience, may be

as destructive as the forces of nature. We must keep the vacuum filled with factual information.

In closing, I would like to say that probably no one can say for certain how to overcome communication difficulties. Simple, forthright language is important. Frequent repetition of vital messages is essential. Continuing use of all acceptable methods of communication is highly desirable. Finally, maintaining a climate of confidence with a high degree of believability - the result of honest communication over a period of time - is a vital ingredient. A well informed organization generally is a harmonious one. People who know and understand programs and policies develop esprit de corps, and enjoy working together toward a common goal.

In The Field

SERGEANT W. B. LOOKER

With the relocation of 4 CMBG in the summer of 1970 from the Soest area in Westphalia to Lahr in Southern Germany the role of 35 FDU has changed considerably. Previously dental support was provided solely to an air element, now there is a combined air/land force which has brought about innumerable changes. Primarily this has been accomplished by the incorporation of a dental field section into the Adm Coy of 4 Service Battalion for field exercises.

There are two sets of exercises which involve the unit. The first is a Fall training exercise from late August to mid-October at Hohenfels, 85 kilometers north of Munich and 70 kilometers from the Czechoslovakian border, followed by a six week winter exercise with range qualification on all weapons of 4 CMBG starting with the New Year in Grafenwohr (65 kilometers north of Hohenfels).

Because of the length of the exercises

and the need to train as many dental personnel as possible in the field environment, it has been the policy to rotate each team of one dental officer and one dental assistant approximately every two weeks. Laboratory personnel were involved only in the Fall exercise and because of the shortage of driver trained laboratory technicians, a longer period in the field was required.

The field equipment has changed little over the last decade or two. In fact the vehicles are approximately 18 years old and the odd problem of maintenance does present itself. Pump chairs have been bolted to the chassis of the vehicles for patient comfort. The Encore unit is attached to the bulkhead of the van. The power supply is a horse of a different colour. Its functioning depends on the strength of the right arm and lots of perseverance. These generators are of 5KW size - vintage unknown,

reliability doubtful. Many a late meal was eaten by candlelight.

HOHENFELS 27 AUGUST-17 OCTOBER 1971

CFDS personnel were included in the advance party and left at 0445 hours 27 August for the 16 hour drive to the Hohenfels training area. On arrival, accommodation was secured (tents by rank) before supper. The next day the dental clinic was sited on a hill overlooking the tent city.



Tent city from the steps of the dental van. The net in the foreground is used to trap the unwary into dental parade.

The first week and a half were static for the dental team. During this period Preventive Dentistry, regular and emergency treatment were carried out. It is interesting to note that at this period of the exercise, there were compulsory physical training periods - first thing in the morning (before breakfast) - and so one wouldn't get bored, lectures were held in the evening on general military subjects. (Who says things have changed??)

ROCKY MOUNTAIN III, 12-14 SEPTEMBER

The first exercise involving dental support was Rocky Mountain III, a 48-hour move and deployment exercise. The clinic van suffered a breakdown during this period (as happened during each of the other exercises) and was put right by the RCME boys doing on-the-spot repairs (three hours). Unfortunately it took until 0500 hours the next morning to locate the Service Battalion and a further four hours to locate the Adm

Coy. This does not reflect on the ability of the dental personnel to find where one is going as this had to be done without maps (short supply).

On return to the static location in Hohenfels, the dental team continued handling emergencies as well as a couple of sessions of Preventive Dentistry during the 72 hour preparatory period for the next exercise.

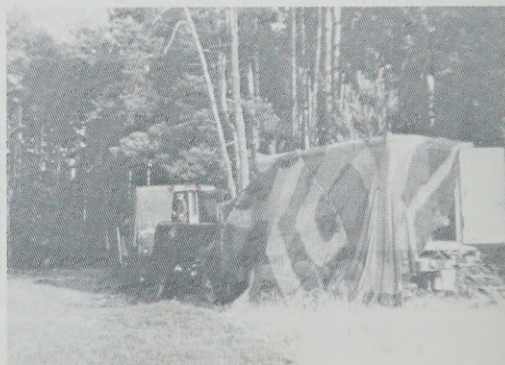
GUTES OMEN, 16-26 SEPTEMBER

This exercise required approximately a 300 mile drive to the staging area - 20 miles from Lahr. During the exercise the Canadian contingent acted as enemy for the German Jagar Corps. As the exercise time was short, dental participation was minimal (emergencies only). However, the dental team was kept occupied performing general military duties, but there was always sufficient time to sharpen up one's culinary expertise (C rations with wine sauces).

At the conclusion of Gutes Omen, the troops returned to Hohenfels and again a clean up and treatment period followed.

REFORGER III, 11-15 OCTOBER

Reforger III was a large American exercise, with many troops air transported from the United States. The battle group again acted as enemy, along with the German Giebirgs Jagar (mountain troops). This was a very fast moving exercise and as a result only minimal emergency treatment was carried out. Not to be outdone by the higher priced



Dental vans in hide (?)

combat types, the dental did their share in the camouflage and guard departments.

GRAFENWOHR, 5 JANUARY-17 FEBRUARY 1972

The word Grafenwohr is synonymous with range work. It is during this period that members of 4 CMBG qualify on their weapons. The time is limited so long hours are spent on the ranges. As a result, dental treatment is minimal. Anyone not involved in range work and whose name has not been checked off the Preventive Dentistry Program list, reports to dental and receives annual preventive care. When possible the dental section also qualify on their personal weapons.

SIDELINES

On one exercise the Protestant Chaplain ably assisted by the Dental Officer commanded a paquet on several moves with the loss of only one vehicle (the dental van) and the damaging of one complete cow pasture - not bad! Time was spent on the guns (M109s) also a short course was attended in handling of plastic explosives (good for loosening old fillings). Witnessing the firing of the SS-11 antitank missile



*The Fighting Dentals - Capt Ron Gish,
Cpl Tom Taylor, Sgt Bryan Looker*

helps you to understand the rationale behind professional soldiers. One DA had the opportunity to take part in an MP ("POOF") patrol in the interesting city of Raegensburg, while one dental team visited the "Toy Capital of the World" - Nurnberg.

The exercise periods are long and could become very boring but as can be seen, it had many interesting moments.

A Visit to "Little France"

Lieutenant Fraser visited St. Pierre in 1954 and again with his family recently. His mother was born on the Island and he has strong ties with his Island relatives.

How would a person visit a part of France yet be within thirteen miles of



LIEUTENANT D.E. FRASER

Newfoundland or 190 miles of Nova Scotia and not leave North America?

If interested, one can travel via plane or boat to St. Pierre et Miquelon, the only French possession remaining on this continent.

These French islands are 9,389 square

miles in area and are governed and policed by Frenchmen. There are no military men on St. Pierre et Miquelon.

The total population is about 5,500 with about 5,000 inhabitants living on the hilly island of St. Pierre, also the Islands' capital. The other 500 people inhabit the islands Miquelon and Long-lede which are attached by an isthmus of sand. St. Pierre has the smallest area of land and the houses are clumped together between the hills and the sea. The widest point from sea to sea is five miles.

A passport is convenient but not a necessity to gain entry to the islands. Without a passport, the entry fee is \$1.00. Tourism is a major industry. In 1970 approximately 8,000 tourists visited the islands and 10,000 are expected this summer.

On 14 July the narrow streets of St. Pierre come alive. This is a French national holiday - the feast of the Bastille. On this day, tourists can be seen mingling happily with most of the local people and taking part in games and sporting events in Place du General de Gaulle. Races, games of chance, swimming and other sports highlight the daytime activities. In the evening, fireworks and sing-songs start the festivities and then the dancing begins. All available dance space is used to accommodate most of the island people and the many tourists. Dancing continues until the wee small hours of the morning.

The streets of St. Pierre are short and narrow, with large potholes visible everywhere. Stop signs are non-existent. Some 2,000 vehicles roam the streets and the driver on the right has the right of way. Drivers approach street corners with their feet on the brakes and always look to the right.

During the early hours of the morning, local people can be seen hurrying to and from the bakery to bring fresh, delicious French bread home for breakfast. The hot bread is carried in a handy nylon sack or just tucked under the arm.

Meal time is treasured by the people of St. Pierre. The noon meal is gen-

erally smaller than the main supper meal. Many stores and shops close for about an hour and a half for the noon meal. The main meal is eaten about eight in the evening. Meals start with aperitifs, followed by the entree, the main course including wine, desert, liqueurs and, if desired, coffee. After dining it is customary to have cheese and wine before planning the remainder of the evening.

Together with tourism, fishing and agriculture round out the economy of the Islands. The Charlebois cattle, imported from France, must be quarantined for a time before being shipped to Canada. Since St. Pierre is in North America, the quarantine station is ideally located on the Island. Canada employs several people such as veterinarians and agricultural workers to ensure proper procedures are carried out. Cattle leaving St. Pierre for Canada weigh approximately 2,000 pounds.

There are two fish plants in St. Pierre, one of which has just recently been completed. A Spanish fishing fleet in the area makes regular stops at the year-round port.

During Prohibition, some of the Island inhabitants made vast amounts of money rum-running. This practice kept Canadian officials and the RCM Police quite busy.

Life today in St. Pierre is of a relaxed nature. Little seems to worry or hurry the St. Pierrais. It often takes years to have projects completed by local workmen. Such an example is visible at the site of their new civic centre. This construction has been going on for five years and is expected to take another two or three years to complete.

The people of St. Pierre are of Basque origin. Some have picked up English quite well. There are no newspapers but radio stations and English television from St. John's, Newfoundland, can be received. The French TV channel in St. Pierre broadcasts four hours daily.

If you are interested in a bit of France here in North America, St. Pierre et Miquelon is for you.

C.A.D.C. TRIP OVERSEAS

Of all the military units that left Ottawa for overseas service with the Canadian Expeditionary Force, none received such a cheerful and yet quiet farewell as did the three platoons of the Canadian Army Dental Corps on the evening of 23 June 1915. The route from Cartier Square to Sparks Street Station was lined with several thousand people as the Corps marched smartly by with the Ottawa Pipe Band in the lead. After many handshakes and wishes of good fortune from friends, officers and men stepped into the coaches, and as the train pulled out slowly all were seized with a peculiar feeling of "off at last on an expedition which might be fraught with so many possibilities of weal or woe" - the thrill of farewell and the double uncertainty of the future coupled with the goodfellowship of kindred spirits.

Strange as it may seem, many people on the docks at Montreal had not heard of the Canadian Army Dental Corps. The first steps in the organization of this Corps were taken by Dr. J. Alex. Armstrong of Ottawa, who on account of his long military experience as a Captain in the 43rd. D.C.O.R., and his success in his profession was appointed Chief Dental Surgeon and promoted to the rank of Lieutenant-Colonel. The second in command was Major O.K. Gibson, also of Ottawa, and the other officer who received his majority, but was left in Ottawa to take charge at Headquarters was Dr. A.A. Smith of Cornwall, Ontario.

The Corps at full strength numbered one hundred and fifty, consisting of fifty dental officers each with an orderly and batman. Twenty of these fifty officers with their orderlies and batmen were already serving with the Canadian Expeditionary Force in Europe; so that the detachment of the C.A.D.C. that sailed from Montreal on the morning of 24 June on board the R.M.S. Missanabie was only 103 strong.

Not many hours had passed on board before almost everyone had made a tour of investigation of the ship. The R.M. S. Missanabie was a large, commodious five-decked ocean steamer of about 13,000 tons with a maximum speed of 16 knots per hour. The officers and non-commissioned officers of the four different units on board occupied cabins on Deck C, the C.A.D.C. holding those amidships. The batmen, quartered on Deck D, felt slightly more at home than any others aboard, for, as they were all recruited in Ottawa, they named their main corridor Sparks Street and their three branch corridors Bank, O'Connor and Metcalfe Streets respectively. The bunks were all very comfortable and well kept. All were agreeably surprised to find that the Missanabie was far more like a regular second-class ocean steamer than any transport ship of which they had ever dreamed.

The regular daily routine began with Reveille, which was sounded at 6 a.m. After attending to toilet and taking exercise, breakfast was served. Everyone not on duty spent the remainder of the morning as he pleased. Some read and wrote, while others spent most of their leisure hours at cards, chess or checkers. Favourite sports after luncheon were deck polo and quoits. But all these were disregarded when the daily newspaper, "The Marconigram" was ready for distribution. It contained wireless messages of all important news from both Europe and America. A wireless message in one Marconigram which made everyone feel a little uneasy, was that the German Submarine U31, had torpedoed and sunk a Donaldson liner. This news, however, did not make a soul waver in his faith in the power and watchfulness of the British Navy.

From 3.30 to 4.30 p.m. daily the C.A.D.C. were allotted the whole starboard promenade deck for drill, physical exercise and sport. First, the roll

was called, and then the whole Corps, led by the Acting Adjutant, repeated the Lord's prayer, after which one of the prayers, authorized for the Active Militia, was read. Next, the drill for the batmen and orderlies was carried on while the officers were marched off to the splendidly equipped gymnasium. Here they rode on horseback, camel and bicycle, and took further exercise rowing, massaging and boxing. A good stiff hour's work-out at this time in the bracing sea air gave everyone a ravenous appetite for dinner in the evening.

However, life on board the Missanabie would have been much less eventful and pleasant had it not been for the sportsmanlike initiative of the Dental Corps in making arrangements for numerous and varied entertainments. The C.A.D.C. was the only unit of the four on board which had and made good use of a yell. Their officers were the first to prepare a programme of sports. The preliminaries of the various races commenced on 30th June and the finals were run off on Dominion Day. The most important event was the tug-of-war in which after four hard pulls a team of eight men from the orderlies platoon defeated the team chosen from the batmen. Then the officers defeated the orderlies' team. Other races run were: three-legged race, wheel-barrow race, sack race, cigarette race and Victoria Cross race. The winners as well as those who came second were handsomely rewarded by the officers.

The C.A.D.C. were also instrumental in arranging for two concerts in the first class dining saloon. The programme of one of these consisted altogether of numbers rendered by non-commissioned officers of the Dental Corps, while the other was made up of all ranks of every unit on board. The success of this later concert financially and otherwise was due to a great extent to the untiring efforts of Captain William Stuart in obtaining the services of the most accomplished artists for the programme which he prepared and had printed so neatly.

But by no means did the members of the Dental Corps spend all their time in pursuit of pleasure. A Dental Clinic was established at the beginning of the voyage and the officers with their ord-

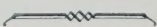
erlies took turns in operating for those who needed the services of a dental surgeon, and a great deal of much needed work was accomplished during the nine days on board.

A unique gathering which was proposed and arranged for by a C.A.D.C. officer was a meeting of Free Masons for mutual instruction on the evening of 28 June. Various parts of the Empire were represented at this meeting but of the fifty-five members present, most were connected with lodges from all parts of Canada, from the fair province of Nova Scotia in the far east to the beautiful and picturesque province of British Columbia in the west.

On two occasions the ship had to stop or slow down on account of fog caused by icebergs. But after eight days sailing, at the average rate of 340 miles per day, the Missanabie met her escort which was to have consisted of a torpedo boat and a torpedo destroyer. The former, however, received an "S.O.S." call from a sinking ship leaving the Missanabie to be taken charge of by the destroyer.

Two days before entering the danger zone, life boat and life belt parades were held, and it is needless to say that all were keyed up to the height of excitement, especially for the last four or five hours on board. When only about fifteen miles from port, a dense fog gathered which was to the advantage of the Missanabie in making it impossible for German submarines to sight her at a distance of more than a few yards, but was also of assistance to the submarines in locating the ship because of the fact that the fog-horn had to be blown every few minutes. However, to the great relief of all on board, the Missanabie on Saturday, 3rd. July, steamed slowly through the narrow, heavily-mined entrance to Plymouth harbour.

Everyone was delighted with the voyage in almost every particular, but of all the units on board the one which enjoyed the trip the most and took the initiative in arranging nearly every amusement of any importance was the Canadian Army Dental Corps.



C.F.D.S. NEWS

1 DENTAL UNIT

By Sergeant J.W. Patterson

Arrivals

A warm welcome to the new members of our unit: Cpl Lyle Kallman, DEM Tech from Petawawa will end his commuting on the weekends when he moves his family into married quarters at Uplands shortly ... Sgt Donna Hollins has just arrived from the hallowed halls of CFDS School ... Cpl Diane Manuge, a former flight attendant at Trenton has returned to dental assisting ... With the current shortage of lab technicians, it's been reported that as of late MWO Earl McFadden has been doing cartwheels in the lab. The reason for such jubilation - none other than Sgt Ron Lindsay just in from Downsview.

Departures

It's posting time once again and since April we've said au revoir to Capt Ames and Sgt Hannay, currently fighting aggression in Cyprus ... Capt Greenacre is now blitzing RMC Kingston with preventive dentistry ... WO C Brown and MWO Torrens are calling la belle province home these days with Brownie settled in the lab at Valcartier and Colleen at last count had mastered about ten new words such as ouvrez, fermez, la dental floss and is busily giving plaque control to her new patients.

Retirements

Dr J Craig retired from the CFHQ clinic last month and is now living in the Vancouver area ... Sgt Luc Boulainne is now released and working in Ottawa ... After 14 years of service, Sgt Flo Putman is severing her ties with the Forces. Flo is busy these days with

knitting needles making booties and reading Dr Spock's book.

Duty Trips

LCol Chatwin, Cpts Cherun and Greenacre attended the Preventive Dentistry Symposium in Borden in April ... The unit was well represented at the CDA Convention in Montreal with LCol Chatwin, Maj Cyrenne, MWO Torrens, Sgt Patterson, MCpl Fletcher in attendance. ... Maj McDermott and MWO Barrett returned from their TD trip to CDLS London exhausted. We all know that patient workload isn't that heavy so we're putting it down to the night life.

And ...

The Commander CFB Rockcliffe has commended Pte Dawn Duncan for her outstanding volunteer assistance with the Winter Carnival "Sno-Doo" held in February ... Cpl Bob "Hotfoot" Gayler clocked an impressive 8.30 minutes on his mile and a half physical fitness run. Sounds like a new record for CFDS??

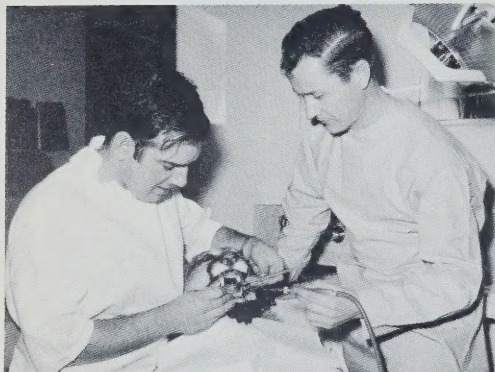
12 DENTAL UNIT

by Lieutenant D.E. Fraser

Items of Interest

Col SG Bagnall, as the senior land environment colonel in this area found himself on parade recently as Admiral Timbrell's representative during the trooping of the colours by local cadets. We are now having a reviewing stand constructed in front of unit HQ but are not sure just what the colonel has in mind ... Maj KP Buchholz was called on to present lectures on oral hygiene to a local Lions Club cadet squadron on the occasion of their annual inspection ... Capt JD Rowat recently accompanied the

CFB Summerside base commander, Col R Sturgess on an inspection of base facilities ... As a result of this inspection (?) Capt Rowat and Sgt Tom Girdlestone were called upon to repair a mascot of one of the base air squadrons. The team



found the tiger a bit long in the tooth and are trying to arrange some periodontal treatment with Maj NH Andrews of CFB Halifax ... WO Larry Peverill has been working hard putting up a summer cottage in the Bridgewater area. Just a few weeks ago he launched his newly renovated boat known as the HMCS Plaque by the clinic staff at CFB Shearwater. Using his unknown talents, muscle, time and all of his money, Larry has done a fine job on his summer hide-a-way. The only problem as Larry tells it is that he is now too tired and broke to travel to the cottage. Anyone interested in renting a cottage at Lake Malaga? Oh, well, there's still the boat ... Lt WA Jackson was elected Mayor of CFB Cornwallis on 19 June. Bill will hold the distinguished office for one year. Good luck, Mr Mayor ... MWO Stan McLean was appointed Vice PMC of the WO and Sgts Mess at CFB Cornwallis for six months, after which he will serve as PMC for six months. This appointment was made by the base commander, but it won't go on Stan's conduct sheet ... LCol TD Cobb switched on his ham radio set and tinkered with the dial. He tuned into a conversation between two men discussing their own ham radio equipment. One of the men from Indiana spoke with a "southern" accent, the other with an Arabic accent. He was King Hussien of Jordan. "He's on the air a lot," said LCol Cobb. "I have heard him many times but have not spoken with him myself." Jordan is one of the countries Canadian "hams"

may not contact. LCol Cobb has located stations in Siberia and once contacted someone on a small island off the coast of Australia. This he considers his most interesting radio experience - the other ham turned out to be a dentist. This equipment and the enjoyment LCol Cobb receives from using it has become his number one hobby. It's his way of clearing his mind when he wants a break from daily routines.

Sports

Maj Harry Amos continues to monopolize the volleyball scene around CFB Halifax. Recently he was selected as Referee-in-Chief for the Forces national volleyball championships at CFB Petawawa. He has been appointed director of senior volleyball development for the Province of N.S. He will also be a head coach at the provincial development camp at Acadia University through the third week in August ... On a visit to CFB Summerside Col Bagnall and Lt Fraser accompanied Capt Doug Stewart and Sgt Bob Brighty for an evening of fishing. The basket-full of trout caught by the Halifax fishermen were delicious ... On 21 June the Halifax Dartmouth area members of 12 Dettal Unit held a golf tournament at Hartlen Point Golf Club. The 9-hole course was completed in three hours. The fog was so thick during play that spotters were used to follow even the shortest hit balls. As the last four-some reached the club house the sun shone through and it became a beautiful evening. First prize, donated by Maritime-Ash Temple Ltd through Capt (retired) Jack Mullins, was won by WO Jimmy Minnelli. Other prizes were presented to deserving duffers who found their way through the dense fog.

DENTAL SERVICES CFHQ

Brick at Bisley

The DCRA clinched Bisley's top team trophy, the Kolapore, after a neck and neck tussle with last year's winner, the British Rifle Association team. At one point, the Canadians were 16 points behind the BRA. As LCol John Brick

tells it: "We suddenly pulled ourselves together on the 600-yard range and banged everything into the bull's eye. We were all fighting against a fish-tail wind. It was blowing straight at us, then curving left or right. But we were lucky in our judgement of the conditions and got the high scores needed to win - 1,142 points out of a possible 1,200."



Our Quarterly layout man, CWO Pen Griffith-Jones got himself in the news recently checking the layout of the Personnel Newsletter with its new editor, Capt LA Dodd.

15 DENTAL UNIT

by Sergeant J.R. Joly

St Jean Renovated Clinic

The recently renovated clinic at St Jean opened 2 June. The face-lifting of this old wartime building was amazing with the installation of picture windows, wall panelling throughout and a false ceiling with panel lights.



BGen Evans with Cpl Parent in the lab.

Temporary Duty

There's never a dull moment for unit TD teams servicing isolated units. Recently Capt Chestnut and WO Fathers, visiting CFS Moisie, were confined to barracks (with all other servicemen) for the first two weeks following their arrival due to labor union riots in the neighbouring town of Sept Isles ... Capt St Louis, on a TD trip to Chibougamau, caught a five pound grey trout in a lake just outside the town - small wonder he wanted to extend his TD.

Back From Cyprus

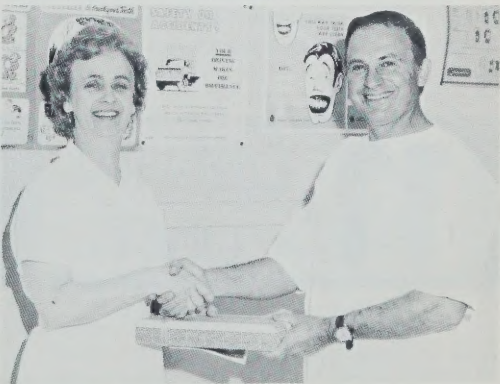
Capt MF Pilon has returned from eight months on Cyprus. His tour of duty was extended a couple of months and judging from his travels, he needed the extension. The highlight of his visiting Norway, Denmark, Italy, Greece, Turkey, Israel, Lebanon, Ethiopia, Kenya and Syria was a nudist beach on the Greek island of Mykonos.

Going ... Going ... Gone!

Two CFB St Jean dental officers have left on termination of short service commissions: Capt GO Lepage and Capt YG Gagnon. Capt Lepage is entering practice with Capt Chaussee in Ste Foy and



Capt Lepage, Maj Houde, Sgt Roy and Capt Gagnon



Miss Fortin and Maj Bisailon

Capt Gagnon is entering a partnership in Brossard, Que. A farewell party was held for them at the Club Rendez-Vous (St Jean). At the same party Sgt JJ Roy was bid farewell by Major Houde. Sgt Roy is retiring after 23 years with the Forces ... Dr WA Sugars has departed for St Kitts to serve with CUSO ... Miss Fortin (HS PHS 3) was presented with a gift from the clinic staff at Longue Pointe. She is only moving across the river to St Hubert - but after 22 years in one clinic this is quite a step for her to take.... Maj Arpin thought it wise to have a photo taken before his clinic staff in Bagotville broke up on posting. Cpl Griffiths has gone to Edmonton and Maj Arpin to St Jean.



"The Bagtown Five" - Pte Genest, MCpl Griffiths, Sgt Cormie, Capt Meunier and Maj Arpin.

Sports

Maj Gerry Bisailon of Longue Pointe took top honours in a recent Forces golf tournament held at l'Epiphanie - obviously getting warmed up for the CFDS golf tournament in September.... Sgt Joly recently won a prize in a St Hubert Club tournament held at Chambly. He would prefer not to mention his score but he certainly understands the Atlantic handicap system.



by Sergeant R.S. Walker

Trip to Fort Lewis

LCol Butcher, Maj Eadon, Maj McDonald

and Capt Stirling attended "A Day in Oral Surgery" on 28 April at Madigan General Hospital, Fort Lewis, Washington. Maj Jim McCallum was an excellent host and the visitors were made most welcome. They also made a trip through NORAD regional headquarters at McCord Field.

Medallist Now A Captain

The following article about Capt Kendell of the Naden clinic, CFB Esquimalt, was filched from the Winnipeg Tribune of 24 May 1972.

Members of Canada's armed forces will soon be benefitting from the highly qualified services of the gold medalist in dentistry at the University of Manitoba.

Barry Kendell, a Manitoban who has won five other major awards and eight minor ones, will leave for Victoria immediately after he receives his degree Friday afternoon. There he will put on his new cap as captain in the Canadian forces dental services.

Mr Kendell joined the forces during his second year of study, through the Dental Officers Training Plan and must serve for five years. He was a lieutenant during his university time.

After the five years he hopes to return to university for postgraduate work in dentistry. He said in an interview his eye is on teaching in the future.

Dentistry has always been his interest, he said, perhaps because his neighbor is a dentist. "I like the hours and the security and always wanted to be in the professional field." Because he enjoyed anatomy and biology, he decided on a medical career and picked dentistry.

The image of the dentist is changing, he said, and the man in the white coat spends less time looking into patients' mouths and more time talking to them about prevention and proper care.

Because of this the curriculum at the dental college has changed to emphasize prevention, things like fluoride and cleaning of teeth by hygienists.

Another change is that the dentist is becoming more of a diagnostician and a specialist overseeing assistants to whom he delegates work.

The job has become too big for one man, he said, just like the doctor's job. Partly this is because of the push by government and patients for increased service.

Mr Kendell said he believes many dentists look forward to some form of government dental service, partly because this will eliminate the present average loss of \$2,000 a year on fees which can't be collected.

More money is needed to educate the public about dental care, Mr Kendell said, praising two toothpaste manufacturers for the effort they have made in this field.

The Sports Scene

Sailors. Maj John Eadon and Capt Don Graham were part of the crew of HMCS Oriole in the annual Swiftsure Yacht Race in Victoria. Although well back in the finishes they both enjoyed the experience.

Golfers. A unit golf tournament at Nanaimo Golf Club on 25 May drew 23 golfers from Comox, Chilliwack and Victoria. The winner was Sgt Don Hill with a net 73 ... Chilliwack reports that the Spring Handicap was attended by five dental personnel. Cpl Wayne Cudmore won a trophy and prize; Sgts Armstrong and Braslins each won a golf ball for feats not mentioned.

Eaters. A unit barbecue was held 20 June at LCol Butcher's house. About 60 dental personnel and partners attended and really tested LCol Butcher's new patio with a few foot stomping polkas. Much to the CO's delight the patio still stands.

Anglers. Considering the bleak start of the day - BC liquid sunshine - the fishing derby on 14 June was a great success. It was not so much the fish but the party afterwards! Of the four boats which went out, six fish were caught, one of which was a nine pound salmon caught by MCpl Phil Coss. The smallest was a grilse caught by Sgt Jim Hughes. There was some controversy as to which was the oddest - Sgt Jim Hughes or Cpl Arnie Alkenbrach's. Jim not being greedy conceded the prize to Arnie. The prizes were presented at WO Peter Sprathoff's house following a delicious meal and punch of cognac soaked strawberrys and champagne. Needless to say everyone went home happy and "satisfied".

Netters. A few members of the dental clinic at Chilliwack have taken up tennis but by reports received it will be a long time before they suggest a CFDS tournament.

DENTAL SERVICES SCHOOL

by Warrant Officer P.D. Peterson

Visits

One of our pleasant tasks at CFDSS is to host various groups and individuals as they visit and tour our facilities. Of interest over the past few months were the visits on 29 June of Rear Admiral Murdock, Commandant of Canadian Defence Educational Establishments; BGen BP Kearney, also in June; and MGen JP Baird, Commandant of the Royal Army Medical College, Millbank, England, in April. Last but not least 40 students of the Bickford Park High School in Toronto toured CFDSS in May.... And of our people, Capt PA Williams visited the Ontario Dental Convention and WO JG McDonald attended the Ontario Dental Hygienist Convention.

Summer Duty

Another first has been chalked up to CFDSS with the involvement of our personnel in the basic training of officers. Previously basic training of officers was done at CFB Chilliwack at the Canadian Forces Officer Candidate School. An increase in officers for basic training taxed the resources of CFOCS, so a detachment was sent to CFB Borden to run a basic training course. Personnel from various units across Canada came to Borden as directing staff. CFDSS contributed three: Capt K Morley, WO P Peterson and Sgt N Hope, who will be busy this summer with DOTP, ROTP and UTPM.

The Annual Spring Ball

Hailed as one of the best parties ever held, all ranks of CFDSS along with their wives and girlfriends gathered for a sit down dinner followed by a dance to celebrate the end of a long winter and to socialize as only we of the CFDS can. The opportunity was taken to say goodbye to Capt Bill MacInnis posted to CFB Moosonee, WO Jim Atherton, on his way to CFB Galetown, Sgt Donna Hollins, posted to 1 Dental Unit in Ottawa and to Cpl Al Lambert, banished to the sands of Peta-wawa.

Balancing the Books

Even as we said goodbye to old friends and associates we were able to welcome new arrivals to aid us in maintaining a balance in our ranks: Maj McQueen from the University of Toronto, Capt Hodges from CFB Petawawa and Capt Pilon from CFB St Hubert.

Promotions

The staff of CFDS joined in hoisting a few in a toast to two of our staff who were recently promoted: CWO Mike MacDonald and MCpl Tom Cooper. Naturally the recipients of the promotions bore the costs of the toast.



by Mrs M Dykes

Prairie Patter

BGen Garth Evans visited the Winnipeg clinics in May before going to Edmonton where he visited the clinics and supply section ... LCol JJN Wright, Maj IW Susser and Maj CL Gullekson attended the Preventive Dentistry Symposium at CFDS 12-14 April ... LCol JJN Wright and Maj HJ Marion attended the CDA Convention in Montreal and presented papers on 6 June ... The Alberta Dental Association convention was held in Edmonton 4-5 May and attended by LCol HR Kettlys, Maj WR Collier and Cpts JDF Cormier, RCA Fearon and NS Misura ... Capt PR Wooding and WO HD Wagstaff lectured and demonstrated Preventive Dentistry at the University of Alberta to a class of dental nurses being trained for duty in northern health units ... Sgt Paul Fox is the new president of the Airway Reelers Square Dance Club at CFB Winnipeg ... Maj RJ Paturel presented the Grade Ten English 100 Award at the annual graduation ceremonies at Princess Elizabeth School, CFB Shilo on 16 June. This award is sponsored by the base dental detachment ... Capt RCA Fearon will provide sex education lectures at the DND School in CFB Alask again this year. It's nice to see special talents recognized! ... During a recent liaison visit to the Western dental detachments of 14 Dental Unit

Col LR Pierce and Lt B Vandervaat were anxious to reach their destination as quickly as possible. The RCMP were not the least bit sympathetic. Hurts the pocketbook, doesn't it, Lt V? ... Lately the Westwin clinic seems to be glowing with a special light. The source is a new diamond ring worn by Pte Laurie Vardy who was recently engaged.

Retirements

The CFDS officers at CFB Edmonton held a farewell lunch for Cpts JDF Cormier, JS Dion and NS Misura, leaving for private practice at Riviere du Loup, Baie St Paul and Calgary respectively ... At CFB Calgary farewells were said to Capt RM Depledge, entering civilian practice in Calgary ... Clinic parties were held at CFB Cold Lake to mark the release of Capt CJ Sharpe, going to postgraduate training in oral surgery at Dalhousie this fall, and Maj Pankratz, to private practice in Williams Lake B.C. ... A farewell dinner party was held 15 June for MWO and Mrs Merv Conkey on retirement from the CFDS. The party was atten-



Wilma and Merv Conkey with
Mrs Evelyn Bilbey

ded by dental personnel of the Edmonton area and by several CFDS personnel from out of town ... At CFB Winnipeg informal functions were held to bid farewell to Mrs DE Beemer and Cpl DP Kurbis upon leaving the CFDS.

Sports

The second annual Alberta Invitational CFDS Golf Tournament took place at the Base Golf Club Cold Lake on 23 June. The event was blessed with ideal weather conditions and a good time was had by all 33 golfers. The Jackson-Shand Low Gross Trophy was won by LCol JJN Wright; Maj VO

Bergland and Capt JAG Boulanger won the 2nd and 3rd low gross prizes respectively. The low net trophy was won by Cpl MGE Williams with Capt CG Milne and WO HD Wagstaff walking off with 2nd and 3rd prizes. The L.R. Pierce Duffers Award was won in grand fashion by Pte CA Rathbone with a gross score of (censored).



*Captain KV Hansen being presented with the CD by LCol JA Mitchell
Base Commander CFB Winnipeg*

KEEP THAT FLAG FLYING!

15 May 1972

Base Dental Officer,
CFB Moose Jaw.

On the occasion of my retirement from the Forces, I would indeed be remiss if I were to depart without paying tribute to the Canadian Dental Corps for the excellent treatment they have given me over the years.

My association with the dental services began in 1941-42 when small detachments of the CDC were serving with the Commonwealth Air Training Plan. In those days equipment was primitive, almost non-existent, and the facilities taxed to the limit. I recall one unfortunate who operated most efficiently from a clothes closet. Even then, patience, skill and devotion was very much in evidence and it required only a short period of time to develop into the excellent organization that we all know today.

Please accept my heartfelt thanks for the many hours contributed on my behalf by you and your colleagues. Mere words cannot express my gratitude for a job so well done.

"T.A. Robinson"
Sergeant
ATC

(Editor's note - The BDentO Moose Jaw is too choked up to make a suitable reply at this time. He has retired to his clothes closet to figure out where he went wrong.)

35 FIELD DENTAL UNIT

by Sergeant W.B. Looker

In The Field

35 Field Dental Unit (and we live up to the *Field* in our name) recently completed a two-week exercise at Munsingen, commonly referred to as MUDsingen (knee deep variety). Taking part was Capt Ekart Schroeter, MCpl Garry Jones, Capt Ron Gish and Sgt Bryan Looker. Being field types, of course, one must be proficient in handling weapons, so it was off to the ranges for Maj Boucher, Capt Ringland, WOs Bleakney and Fret, Sgts Wormington and Looker, MCpl Jones, Cpls Craig and Lamontagne to qualify on the FN and SMG and LCol Donely and Capt Gish on the pistol.

In Shape at SHAPE

Maj Vic Lanctis has now ceased to romp around Europe playboy style. He and Miss Claudia Waters tied the nuptial knot in a legal ceremony on 26 April and gave their vows in the SHAPE Chapel on 29 April. Following a three week honeymoon in Cyprus, Vic decided after two weeks back in Casteau that two people can't live as cheaply as one. He therefore found it necessary to do his final tour through Belgium, France and Spain by POC (Privately Owned Cycle) to keep the cost down. Vic and Claudia return to Canada and staff college in August.

Summer Winds

Summer is the time of rotation in Europe and we will suffer this year. Each clinic has been having farewell parties, Baden barbecues and Lahr gashofing - saying farewell to the following: Maj Emmet Foley to CFB Cold Lake, Capt Bill Gray to CFB Halifax, Sgt Rick Haiplik to CFB London, MWO John Hutchinson to CFB Halifax, Sgt Peggy Mahlitz to CFB Tren-

ton, Cpl Mike White to CFB Kingston, Sgt Bill Buxton to CFB Trenton.

Also summer is the time to travel. Capt and Mrs Ekart Schroeter - Cyprus; Capt and Mrs Dan Morrow, Cpl and Mrs Jerry Lamontagne - Yugoslavia and Greece; Sgt Bev Gilkes, MWO and Mrs Bill Hoy - Austria and Holland; Capt and Mrs Ron Gish - Spain; Cpl and Mrs Garry Jones - Cyprus; Capt and Mrs Tom Ringland, WO and Mrs John Fret - Holland; Maj and Mrs Andy Boucher - Spain.

Sports

With the new physical fitness policy introduced in Canadian Forces Europe recently, the members of this unit have joined the ranks of the physical fitness cult. In the recent mile and a half run, 35 FDU came away with four in the "excellent" category and of course, no failures. What tends to be a bit of a mystery is - what took the Moose Jaw two so long in running the distance? Capt Dan Morrow is reported coming in at 9.57 with no effort and Sgt Bryan Looker 9.33 and still breathing heavy ... We now have in our midst a potential Robin Hood - WO Tom Deloughery, a member of the Baden Archery Club ... And at the plate, we find Sgt Bob Wormington playing for the Baden Base inter-mess team ... Meanwhile back in Lahr, the base clinic, feared by all comers, have what is known as a pretty mean ball club - The Fangs. To date no opposition has dared to show itself; as a result, The Fangs' record is unblemished.



Observing Preventive Dentistry Week in CFB Petawawa: Maj GR Nye, LCol GE Windsor ("Hmmm, this SnF2 has a rare bouquet"), Col WR Thompson, ATC Command Dental Officer, and Maj HS Wood, DGDS CFHQ Preventive Dentistry Officer.

with LCol AG Andrews, presented a paper and slides on Impacted Teeth - Preoperative evaluation, anaesthetic and pre-medication consideration, surgical procedures and post-surgical complications. Also attending from 13 Dental Unit were Majors JAR Fortier, IAC MacDonald, H Griesbach and Capt GP Greenacre ... Personnel of 13 Dental Unit attending the Ontario Dental Association convention in Toronto were Col WR Thompson, LCol WW Anglin, Maj JJ Walker, Capt RS Haines and Capt PA Wood ... Dean K McIntyre of Cambrian College visited the North Bay detachment to coordinate instruction in the forthcoming civilian dental assistants course ... Col WR Thompson carried out oral surgical procedures at CFB Cold Lake on 26-27 June and at CFB Edmonton 28-29 June. He then proceeded to British Columbia where he attended the annual meeting of the Canadian Society of Oral Surgeons from 30 June to 2 July. This meeting had Dr. Robert Walker of Dallas, Texas, president elect of the American Society of Oral Surgeons as the guest clinical speaker ... Majors GR Nye and IAC MacDonald with Capt MS Bouris attended a Preventive Dentistry Symposium at the CFDS School ... Major IAC MacDonald and Capt PA Wood attended the Jefferson County, New York, Dental Society meeting at Alexandria Bay. The Kingston and District Dental Society were guests at this function. The subject of the presentation was Destructive Occlusal



by Sergeant E.S. Beattie

Taps ...

Lt LR Hatcher and MWO RG Hopkins removed the dental equipment and closed out the Avenue Road clinic in Toronto on 26 June.

The Wheat ...

Col WR Thompson attended the CDA Convention in Montreal and in association

Forces ... LCol WW Anglin, Major JAR Fortier and Capt MS Bouris attended the meeting of the Bay of Quinte Dental Society in Belleville. Dr Wesley Dunn was guest speaker; his topic was *Contemporary Issues in Dentistry* ... WO JE Clarke was an assistant examiner for the Governing Board of Dental Technicians at the 1972 Registered Dental Technicians examinations held at the George Brown College of Applied Arts and Technology in Toronto ... The CFB Petawawa clinic slowed to a standstill in June. The bridge across the Petawawa River collapsed and personnel patrolling detours, operating ferrys and erecting temporary bridges were not available for treatment; Exercise POWER PLAY involved about 2,400 troops; a ground search for a lost child in the Calabogie area involved about 300 personnel. We can only presume that most of the dental personnel were at the renovated dependants' clinic which opened 8 June.



Col WR Thompson presents a wall plaque of the RCDC Crest on behalf of 13 Dental Unit members to Pte H Snutch on his retirement after 27 years of service.

and The Chaff ...

Sgt BL Mackie supervised the work party erecting and taking down marquee tents loaned by CFB Toronto for the Miles for Millions March ... Sgt RS Lindsay was supervisor at the CFB Borden ranges for personnel of CFB Toronto on annual weapons training ... Sgt RW Danyluck led his team to a first place finish and won the Houston Senior Trophy for First Aid in the Kingston Division of the St John Ambulance Brigade ... Pte LD Payette is also a member of the Kingston Brigade ... MWO RF Matheson

and Sgt HL Highfield took a forty passenger busload of children from Middleton Park DND Schools for a day at Ontario Place in Toronto as a reward for their work as school crossing guards ... Maj H Griesbach has been appointed president of the North Bay camera club ... Sgt H McRae's samoyed dog won first prize for best puppy in class at the 100th Anniversary Dog Show in Ottawa ... Sgt P Bosch passed his first year history course at Nipissing College ... Cpl WR McIntosh, in passing his sociology course, completed his first year towards his BA degree ... Major BW Yates' wife after a week in Moose Factory hospital had a ride home via helicopter due to the imminent breakup of the river ice ... Col WR Thompson presented Sgt H Chamberlain with a gift from the CFDS on his retirement at North Bay after 20 years of service.

Dominion Day Activities

MWO Matheson and Sgt Highfield, members of the community council for Middleton Park, CFB Trenton, were involved in Dominion Day celebrations. MWO Matheson arranged the pre-parade decorated bicycle contest open to children of all ages. He persuaded LCol WW Anglin to be one of the judges. Sgt Highfield was responsible for the big fish pond and the 1,500 prizes which were gone in jig time. Float decorating parties were held at their respective homes for their wards. MWO Matheson's float depicted the "First Citizens" with an Indian volage. Sgt Highfield's entry was "Nursery Rhymes" and both were credible efforts. MWO Matheson was also official photographer for a highly successful and enjoyable day.

Wedding Bells

Capt BE McPhee, a recent graduate of McGill University married Dr Lena Kristina Porko, also a 1972 graduate of McGill in dentistry. Mrs Dr McPhee plans to practice with Dr RA Fell in Kingston ... Pte(W) VR Pafford, tired of nothing to do in single quarters and with a new apartment ready ahead of schedule advanced her wedding date to 8 July. She was married to Pte PS Modie in the Protestant Chapel at CFB Trenton. The bridesmaid was Pte(W) MJC Charbonneau and the best man was Cpl GR Robinson. Maj JAR Fortier acted as master of ceremonies at the reception in the Candlelight



Private and Mrs P.S. Modie

Lounge at Base Trenton ... Also in the Protestant Chapel at CFB Trenton, Sgt(W) VH Swiatkevich married WO F Bigras on 15 July. The bride was given away by her brother, Peter Swiatkevich. The bridesmaid was Cpl(W) J Melnyck and the best man was a brother of the groom, John Paul Bigras. The reception was held at the Pines Motel, Trenton.

Sports

LCol GE Windsor passes the position

of President of the CFB Petawawa curling club to Capt MB Fisk for 1973 ... During April sports week at CFB Petawawa when about 2,000 personnel participated in nearly every sport in the book - plus some new ones - 13 Dental Unit detachment had the responsibility of organizing and running the curling events ... WO RE Todd was third low gross in a 36-hole opening tournament at the Kingston Garrison Golf and Curling Club. He has been appointed Club Captain ... Sgt RS Black of CFB Toronto attended the CFB Trenton Sgts' Mess golf tournament and won a consolation prize ... Maj BW Yates figures it will be easier for him to attend the CFDS golf tournament from Europe than to travel the rail route from CFS Moosonee.

- 30 -

This edition of the Quarterly is the last in which the reports of the hard working Associate Editor for 13 Dental Unit, Sergeant E.S. Beattie, will appear. Sgt Beattie is retiring in August to enter Loyalist College to further his education. From the Editorial Board of The Quarterly and all members of the CFDS - the best of luck!



"The Brush-Ins" of the CFB Trenton mixed bowling league rallied to win the A Division playoff championship. The captain of the team, MWO RF Matheson, also won the high single trophy with a score of 367. Pictured left to right are: MWO Matheson, Bunnie Matheson, Capt J McRae, Joan Macklin, Sgt NL Highfield, Judy Highfield and MWO VR Kidd. (Missing - Eleanor Kidd.)

1 DENTAL EQUIPMENT DEPOT

By Lieutenant R.J. Routledge

Sand Sifters

We've lost a few: WO W Chalk, Sgt PE Harkin, Cpl KJ Kallman and Miss Arsenault; and we've gained a couple: WO WH Park and Sgt Carl Schmelzle.... MWO E Everett spent a short period at CFDSS instructing recently.

Awarded Clasp to CD



MWO Everett has been awarded a clasp to his CD. Ernie has served with the Dental Services since 1952. You may have met him in some strange or exotic places as he has been a traveller to far-away places like Borden, Washington, Korea and Germany, Quebec, Halifax, Ottawa, Trenton and now Petawawa. To use a naval (N) expression, he has "worked his passage". Ernie claims this clasp to the CD won't swell his head too much.

Sports

The hardy fishermen of 1 DED ventured forth once more while the whitecaps lashed the shores of the mighty Ottawa. The annual fishing derby of 1 DED-CMED and 13 Dental Unit detachment provided a little more challenge this year. The turnout was great, the fishing poor and the day was a complete success.

The challenge came to individuals and boat groups like MWO Ernie Everett and Cpl Willy Wilson who started off with a bit of motor trouble, got blown out into the river where they wrecked on a partially submerged reef. The shifting wind returned them to shore where they debated the prospects of a fish dinner from their minnow bucket. Along came a friendly native smiling and offering steaks for dinner. Always ready to adapt to the present, Ernie and Willy relinquished their chances at the big ones and fell in with friendly companions and big steaks.

Meanwhile, bouncing along in his new boat, Luke Faught, our carpenter, thinking perhaps he had made a wrong turn and arrived on the North Atlantic, was trying to figure the size of stabilizer he would require. WO George Wadden, his passenger, tired of bobbing, suggested they leave the obsessed Ottawa for the rolling ripples of the Petawawa. This shift in place brought about some settled stomachs and a few fish worthy of prizes for both.

CMED was on the river also. WO Wally Chaulk and Clarence Boldt shipped out together until they ran out of gas in mid-stream. Wally promptly threw out the anchor, assumed his clerk's position and slept soundly while Clarence the good Samaritan stayed awake to scrounge some gas from passing strangers. Others in a similar situation found a more rapid solution when the 2IC of another unit (we won't tell CMED) threw out the anchor while the rope was at home.

The challenge was there as we weathered the storm pulling through with spirit (s) and smiles.

Professional Training

US Naval Dental School

Complete Dentures

Capt RI Stammers, 27-31 March

Periodontics

Capt DM Hodges, 14 April-2 June

Capt LJ Hudgins, 17-21 April

Sheppard Air Force Base, Texas

Cogswell Oral Surgery

Capt RW Rix, 3-14 April

US Army Hospital, Fort Benning

Prosthodontics

Maj ED Cragg, July 1972-June 1974

State University of New York

Radiography

MWO G Bradley, 1-19 May

US Armed Forces Institute of Pathology

Pathology

Capt J Cote, 6-10 March

CF Training

CF Dental Services School

Periodontics and Preventive Dentistry

Capt JF Paquin, JJ Roy, PR Wooding,

RJ Fennel, PR Darlington, ET Dalzell,

26 April-18 May

CF Language School

French Language

Lt(W) VL Kwasnik, 1 May-4 August

CF School of Instructional Technique

Instructional Supervisor

Sgt DH Pion, 10-21 April

Audio Visual Aids

Cpl G Payette, 1-16 June

Instructional Technique 1

WO JG MacDonald, 3-17 May

Instructional Technique 2

Maj DN Charles, 1-12 May

Instructional Technique 4

Maj JF Begin, 15-31 May

Maj LA Reynolds, 7-20 June

CF Medical Services School

NAR (Medical Aspects)

Capt JS Duchesne, 5-16 June

CF Staff School

Junior Staff

Capt RD Carver, 10 April-16 June

Industrial Training

JF Jelenko, New Rochelle

Elementary Porcelain to Gold

Sgt JR Tremblay, 3-10 April

WO EPH Sprathoff, 8-15 April

Ticonium Co, Albany NY

Ticonium Equipment

Sgt C Gratton, 10-12 May

Honors and Awards

DOTP Academic Achievement.

Capt B Kendell, University of Manitoba, won everything but the Dean's doorknob - see 11 Dental Unit News.

Promotions

Major: ED Cragg, TJ Erskine

Captain: KV Hansen, RS Sorchan, JB Maurice, JD Bays, WA Keddy, TP Levy, WA Maillet, DM Moore, TN Yamaski, WJ Jury, R Orenczuk, RL Thompson, R Croll, MM Kropinak, JHP Blain, JLR Larose, JEP Lavallee, RE Fletcher, DR Wright, BE McPhee, B Kendell.

Chief Warrant Officer: M MacDonald

Warrant Officer: JAN Audet

Master Corporal: MY Fletcher, JG Bernier, IN Cooper, CH Forsythe, DT Langford, MJ Michiels, CC Shave

Corporal: MR Williams.

Welcome * Bienvenue

A cordial welcome to the Dental Services is extended to: the 1972 DOTP graduates promoted to captain, and to Mrs PE Jones, Mrs SE Bolger, Mrs DL Bowes, Pte E Toporwski, Mrs PA Duchene, Mrs June Armstrong and Mrs D Pratt.

Au Revoir * Farewell

Farewell and good luck to: LCol AG Andrews, Capt DGJ Chaussee, Capt RM Depledge, Capt WD Fiolek, Capt BLP Hart, Capt GO Lepage, Maj HA Pankratz, Capt GC Post, Sgt E Boulainne, Mrs DE Whaley, Maj TJ Erskine, Capt CJ Sharpe, MWO and Mrs W Conkey, Mrs DE Beemer, Pte NJ Chessum, Capt ME Blasetti, Capt JFD Cornier, Capt Js Dion, Capt YJA Gagnon, Capt CW Kearns, Capt NS Misura, Capt AD Stewart, Dr JL Craig, Capt TM Clark, Mrs J Deschamps, WO JA Shields, Sgt H Chamberlain, Cpl DP Kurbis and Sgt(W) AD Putman.

Vital Statistics

Marriages

Congratulations and many years of happiness to: Miss Jane Lancaster and Cpl DJ Morphett, Miss Claudia Waters and Maj VJ Lanctis, Miss Catherine Ann Lively and Cpl RD Calnan, Dr Lena Porko and Capt BE McPhee, Pte(W) VR Pafford and Pte PS Modie, Sgt(W) VH Swiatkevich and WO F Bigras, Miss Sandra Presber and Capt MM Kropinak.

Births

Sons: Capt and Mrs B Schow, Cpl and Mrs JD Hopkins, Cpl and Mrs EM Clarke, Cpl and Mrs RD Hurkey.

Daughters: Capt and Mrs OG Lepage, Cpl and Mrs J Coss, Cpl and Mrs GJ Gallagher, Cpl and Mrs JM Chasse, WO and Mrs N Cable, Capt and Mrs CJ Chaussee, Capt and Mrs JBM Simoneau, Capt and Mrs J Delong.

Twins: Capt and Mrs PR Darlington (one of each variety).

Bereavements

Deepest sympathy is extended to: Col GR Covey and Maj GR Nye on the loss of their fathers; CWO Greco on the loss of his wife; Cpl and Mrs GJ Gallagher on the loss of their son and daughter; Pte (W) ML Forlipa on the loss of her mother; WO J Hossdorf on the loss of his sister.



THE Dental Officer AS SEEN BY ...



HIS WIFE



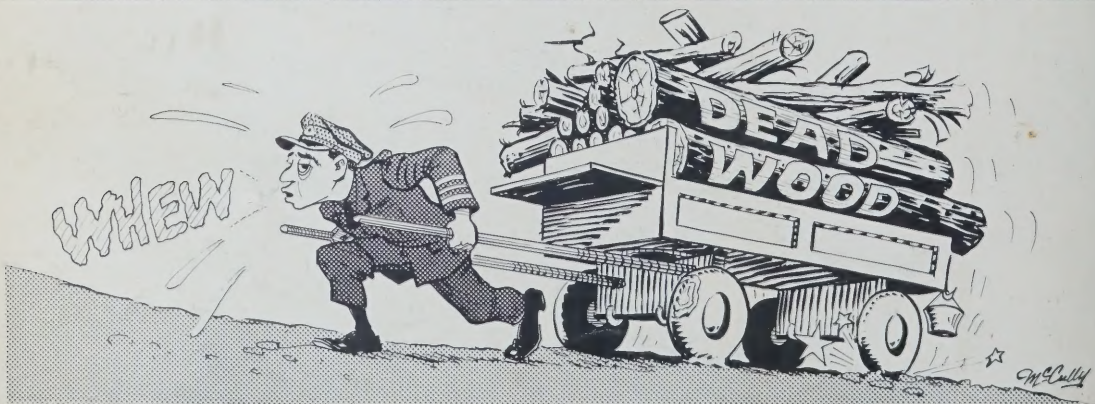
HIS BOSS



HIS PEERS



HIS PATIENTS



HIMSELF

The
**CANADIAN
FORCES
DENTAL
SERVICES**
Quarterly

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The CFDS Quarterly



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Cover Photo

*DOTP Graduation Parade 1972
being inspected by Col LG Craigie,
Commandant CFDSS, accompanied by
the parade commander, 2Lt JERJ
Gauthier. (Page 16)*

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The Director General of Dental Services,
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REIMPLANTATION OF MAXILLARY CENTRAL INCISORS IN A YOUNG ADULT

MAJOR W. BUDZINSKI, DDS



There are many cases in the literature which deal with tooth reimplantation in children but few cases involving adults are reported.

Report of Case

A 24-year old white male was participating in a hockey game against the team on which the author was playing in April 1972. He received a puck in the mouth which resulted in a number of internal and external contusions as well as the complete evulsion of his two maxillary central incisors.

Play stopped, the teeth were located, placed in a paper cup of water, and at the conclusion of the game the player was taken to the dental clinic. The sockets were examined, debrided and the decision taken to attempt reimplantation of these two teeth.

The central incisors teeth were hand-held with 2x2 gauze sponges saturated in sterile saline and canal obliteration completed. These were then placed in the saline solution until the sockets were ready for reimplantation.

Local anaesthetic Xylocaine 2% with 1/100,000 epinephrine was administered. The teeth were placed back into the sockets and stabilized to the remainder of the arch by means of 32-gauge stainless steel wire looped around the teeth in a "figure 8" extended from 4/4. The wire loops were then stabilized to the teeth with acrylic resin.

The contusions were sutured with five "0" silk sutures and the patient dismissed. The time lapse from accident to dismissal of patient was four hours.

The post-operative course was uneventful. The splint was retained in place for three weeks. On removal, the centrals were found to be mobile but not to the extent that would require resplinting. The incisal edges were ground to

take the teeth completely out of occlusion.

The patient was seen again in four weeks and the central incisors were found to still have a degree of mobility. To correct this a lingual preparation was made on the mesial surfaces of both teeth and an amalgam-pin staple was fashioned and stabilized with Sevriton. This splinted the two teeth together and now provided good stability.

This active young serviceman subsequently reported with an undisplaced fracture of the left mandible involving $\frac{1}{8}$. This tooth was extracted with no displacement of the mandibular components. Figure 1 shows the panorex film at six weeks. Good callus formation at the lower border of the mandible can be seen.

In view of the previous interest in the maxillary centrals a periapical film

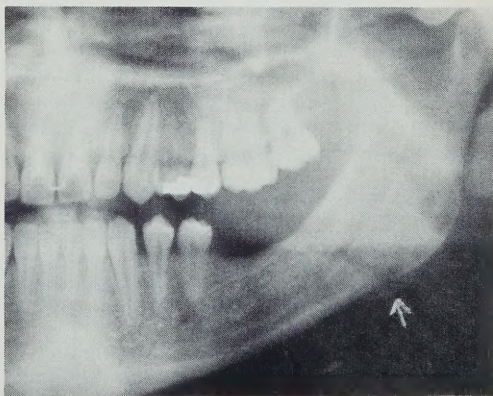


Figure 1.

was taken at seven months post-operatively. No radiolucency was noted. Clinically there is good stability in these two centrals and the area is completely asymptomatic.

Summary

This report details an apparently suc-

cessful reimplantation of two maxillary centrals in a young adult. While the prognosis can not be good for such an active young serviceman, eight months after the incident the teeth are esthetically, functionally, and radiographically acceptable.

CERVICO-FACIAL ACTINOMYCOSIS

CAPTAIN R.D. CARVER, DDS



Etiology and Pathogenesis

Cervico-facial actinomycosis is an endogenous infection caused by an anaerobic, gram positive, branched, filamentous organism known as *Actinomyces israeli* (A. israeli).¹

At one time authorities believed that A. bovis, a fungus microbe responsible for the production of hard sarcomatous-like masses in the jaw-bones of cattle was the infective agent concerned with human actinomycosis.² However, recent studies have established that these two entities are quite different.

Erikson recognized culturally that differences did exist between the human and bovine species.³ The presence of the two independent groups was later confirmed by Vawter,⁴ Thompson,⁵ and Pine, Howell and Watson.⁶

In 1955 Wilson and Miles showed A. israeli, a common inhabitant of the oral cavity in man to be the infective agent in human disease. This species has never been reported to occur in cattle.⁷

Because of the many free-living aerobic actinomycetes species and the occurrence of the lumpy-jaw syndrome in cattle, it was believed that actinomycosis in man was acquired from grass and

straw containing such organisms.² However, A. israeli is not saprophytic, nor has it been isolated in soil or natural substrates,⁸ so this mode of transference can be ruled out. To further enhance this proposition, Lesney and Traeger reported two cases of sailors at sea, many miles from the barnyard atmosphere, who developed the disease.⁹

A. israeli is a common inhabitant of the oral cavity, yet actinomycosis is relatively rare.^{1,10} Bjerrum and Hansen, in examining 112 cases of chronic dental abscesses, were able to cultivate the anaerobic microbe from 27 cases; and yet healing, following extraction of the involved teeth, proved complete and uneventful.¹¹ The organism has been found to exist in every phase of dental work. Tonsillar crypts, periodontal pockets, plaque, calculus, and root canals have all been found to contain this pathogen.⁸ Dental decay is not devoid of this phenomenon. Batty described A. odontolyticus, an anaerobic actinomyccete similar to A. israeli, as being isolated from deep carious dentin.¹²

It is now believed that trauma associated with a mixed infection may be responsible for the advent of disease. Extracted teeth, surgical wounds, and

fracture sites may be portals of entry for the microbe.⁸ Glahan suggests that a combination of organisms may be involved. Aerobic pyogenic cocci, the prime invaders, improve conditions for the anaerobic actinomycetes by reducing the oxygen tension of the lacerated tissue and by lowering the general host resistance.¹³ A. israeli, although it has a low pathogenicity, may then multiply freely and invade the surrounding tissues causing necrosis.⁸

Clinical Features

The course of cervico-facial actinomycosis seems to follow a specific path; forced entry, caused by trauma, allows the organisms to invade the oral mucous membranes.² Two forms of the disease may arise from this initial onset.⁸ The peripheral type occurs when the microbes remain localized or tend to invade the soft tissues, such as the salivary glands and skin of the face and neck.¹ A noticeable swelling may be present which develops into one or more abscesses discharging upon a skin surface, liberating pus containing sulphur-granulae colonies.¹ To differentiate the process from a non-specific inflammation may be difficult in the early stages; however, the virulence of the disease is outstanding. Unlike a streptococcal infected cellulitis which tends to follow the spaces and fascial planes of the neck, the actinomycete shows no preference for a drainage pattern except that it rarely discharges through a mucosal surface but tends to exhaust itself through the skin on the face. A hard, indurated, painless, fluctuant swelling may first be noticed, usually in the area of the initial trauma.⁸ The skin overlying this region takes on a purplish-red hue with multiple fistulae appearing. These, in time, may heal; but recurrent pyogenic abscesses take their place and the patient becomes scarred and disfigured due to the chronicity and the damage of the disease.¹

If the peripheral type goes undetected and untreated, a second form - the central type - may establish itself. Bone involvement, causing swelling and trismus in the region of the angle of the mandible or its ramus, is often an initial sign.² Radiographically, cortical expansion and raising of the periosteum may be seen, caused by a sub-periosteal

abscess formation.² Sequestration in a radiolucent granulomatous area is often encountered.⁸ This specific chronic osteomyelitis may now become metastatic in nature spreading to the pleura, the cranial meninges, or the brain itself.²

Histologic Features

A typical lesion associated with the disease is a granulomatous one with central abscess formation within which are the characteristic sulphur-granule colonies.¹ The colony is lobulated in form and surrounded by polymorphonuclear leukocytes. On the periphery of the lesion may be seen many multinucleated giant cells and macrophages. When viewed by reflected light the colonies appear opaque, spherical, and greyish white; by transmitted light they are yellow in colour and soft and oily in appearance.²

Treatment and Prognosis

The treatment of actinomycosis is not always successful and the prognosis usually is dependent upon the part of the body affected.¹ The cervico-facial type offers the most favourable outcome; however, repeated surgery to remove the granulomata and fistulous tracts may be necessary.⁸ High doses of penicillin and/or tetracycline over the prolonged course of the disease are useful. Proper drainage and curettage of the area with the removal of doubtful teeth is helpful in terminating the process.²

Case Report

A 27-year old male patient presented with pain in the lower right quadrant of his mandible. Clinical and radiographic examination of the area revealed a pericoronitis involving the lower right third molar. Under antibiotic coverage (Tetracycline, 250 mg q6h), the molar was uneventfully surgically removed and the sutures removed the following week.

Two months following this initial procedure the patient returned with swelling about the angle of the jaw on the same side. A course of penicillin was then prescribed and the swelling subsided but was not completely eliminated.

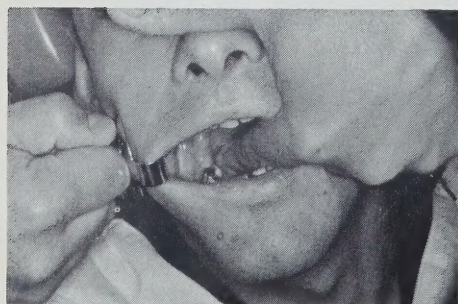
Periodic observation and a change of antibiotic therapy (Erythromycin) was initiated without clinical evidence of benefit. The mass had become board-

hard, lay slightly above the lower border of the mandible and seemed to point through the skin. It had a reddish hue, was firm in texture and indurated. Needle aspiration was performed and a bloody exudate was submitted to the laboratory for direct smear and culture examination. The report indicated a mixed infection with *A. israeli* sulphur-granule colonies present.

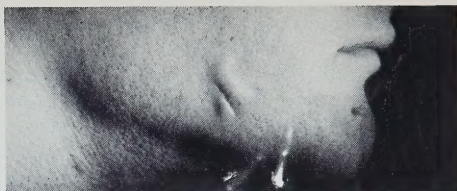
On the following week the mass had softened considerably, formed an abscess and was draining through fistulas on the skin surface. Incision and drainage produced large quantities of pus containing brownish-yellow granules. The site was packed with iodoform gauze and the patient put on 2 million I.U. penicillin daily for three months. Periodic observation of the patient revealed a decrease in size of the area with scarring and disfigurement due to the drainage and surgical procedures evident. Healing was complete eight months after the initial infection.



Tooth for extraction radiograph



Intra oral view of completely healed extraction site



Extra oral view of draining fistulae



Sulphur granules in tissue section



Healed extra oral site

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CFDSS Adventure Training

by SERGEANTS R.K. DELMAGE
and N.J.F. HOPE



On 18 September ten members of CFDSS set forth on an adventure training exercise in the form of a canoe trip through Algonquin Park. At this point, although the trip was only beginning, much preparatory work had preceded this "swan".

The first hurdle in getting the ball rolling was approval by Base HQ and TCHQ for the financial and logistic aspects of the trip. After this had been obtained the members, representing a cross-section of CFDSS, were chosen from the many volunteers seeking a free week of sunshine and fishing. These volunteers had to complete a program which included physical fitness tests exceeding the normal standards and watermanship training in all aspects of canoe-handling.

The following is a daily chronicle of the events of the expedition. Where

deemed pertinent, names have been omitted to protect the guilty.

DAY ONE. Under the command of LCol HW Brogan, expedition commander, we departed CFB Borden by military vehicle at 0715 hours Monday 18 September. By 0800 we had surmounted our first logistic problem by retiring to a restaurant at "Gasoline Alley" three miles north of Barrie on Highway 11 because of a breakdown in the vehicle carrying our equipment. At 0900 a replacement arrived and we were merrily on our way in high spirits. Capt Rick Kokotailo, who had been designated ration clerk, taking his position seriously, made a name for himself on the bus by eating everything in sight. He started munching on cold chicken wings at 0730 and people kept feeding him bits



and pieces thereafter to keep him going. The trip went as per schedule until we were within ten miles of our start point. Just east of Emsdale a road crew had torn up the only through road to replace a culvert and we had to wait until the road was made passable again. One old chap overseeing the job was of the opinion that we would never win a war if we could not cross an insignificant obstacle such as this.

The vehicles delivered us to our start point at Magnetawan Lake at 1230 hours and as we pushed off in the canoes it began to rain.

Except for the rain and an unscheduled side trip into a lake not on the route card the way was uneventful and we arrived at our first objective on the steel side of Queer Lake just before nightfall.

Amid the incessant downpour everyone proceeded to make a wet camp. After a much-needed hot meal was devoured LCol Brogan and Capt Dale Graham, who had pitched their tent on a rock that proved to be a collection point for water, wisely decided to change their location "just for practice".

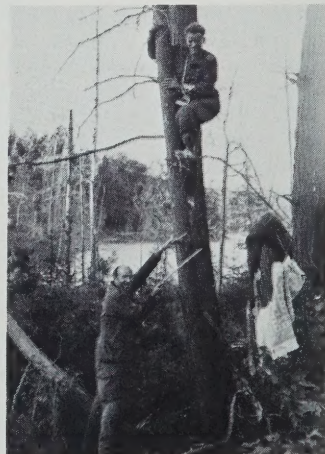
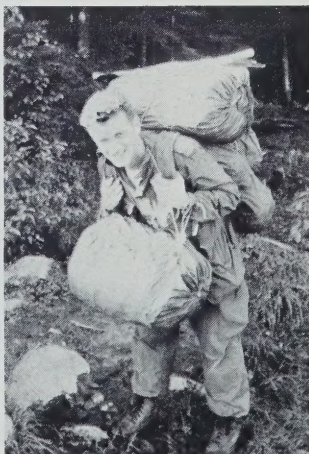
Since a campfire was out of the question, everyone retired early to get a good night's rest in order to steel themselves for the tasks which lay ahead.

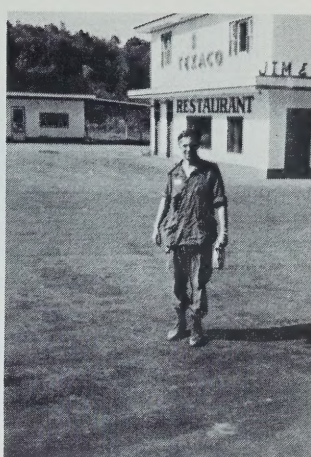
DAY TWO. Tuesday morning arrived cold and windy with many wet clothes in sight. 0930 saw us crossing our first long portage of 2,600 yards and this proved to be a very strenuous task to say the least. A few people were coming to the realization that this was not going to be all sun and fun after all. Many

different methods of crossing a portage were attempted and it was obvious that modification would have to be adopted if some members were to survive the ordeal. On this long portage Sgt Keith Delmage hid behind a tree and as Sgt Darryl Mason and Cpl Irv Winson passed by with the canoe down over their heads, he stamped his feet and let forth with his best imitation of a bull moose in rut. Upon hearing this sound, the canoe went straight up and Irv, uttering a cry of distress, prepared himself for the necessary traction required to carry out a hasty retreat. Discovering that the moose was much smaller than expected, Irv began to turn the air blue as he was the only one who did not see the humour - at least not until he began to breathe normally again.

It was 1100 hours before we were finally in the water and paddling again. After many hours paddling and portaging, interrupted only by a much-needed lunch break, we arrived at a 1,200 yard portage - obviously a converted mountain goat trail. After a quick recce of the trail and the fast water it skirted, it was decided that the lesser of two evils was to shoot the rapids. We made it through unscathed with nothing more than wet feet and pants. There are now many white, green, and aluminum marks on the rocks of this particular run. This was to be the highlight of the day.

After three more hours of hard paddling we arrived at a campsite on the east side of Shippegrew Lake. This was an excellent location with nice sites for tents. The shoreline was soon dotted with wet gear hung to dry.





Irv Winsor demonstrated his native ability by showing us how the "Newfies" fish - three flies on a ten-pound test line attached to a spinning rod sans reel. Much abuse was hurled in his direction until he pulled out a number of small chub and had the last laugh.

Sitting around the campfire in the evening resting many a sore muscle, everyone enjoyed coffee and swapped stories of the day's adventures. By general agreement the narrow meandering Tim River had proven to be a remarkably enlightening test of true paddling abilities.

We were faced with a 1,700 yard portage first thing in the morning but it seemed very far away as the coffee pot was being passed around that night.

DAY THREE. 0900 hours found us crossing the portage which proved to be very hilly and rocky with everyone tucked out at the end. Sgt Norm Hope by this time had made his reputation as the "pack mule", this being a compliment so earned by the tremendous loads he carried. WO Pete Peterson, now an expert "white water" man, decided to shoot the rapids alone. He must have experienced some difficulty as he arrived last in at the end of the portage soaked to arm-pits with much of the green paint missing from the bow of the canoe. By his own admission, it possibly was not the easier of the two routes.

After a very difficult four-mile crossing of big Trout Lake in a severe chop with the wind in our faces, we entered Otterslide Creek. This was the upper end of what is known as "main street" by the

park rangers due to the heavy week-end canoe traffic. It was here that we met many other canoeists - particularly three Yanks who wanted to know if we were in the National Guard.

Everyone was now becoming more skilled in canoe handling - except for a couple who persists in doing everything with the "J" stroke from both bow and stern.

We stopped early in the evening at Burnt Island Lake in order to swim and wash up as the odor of a well-worn hockey sweater pervaded everyone.

We had been hearing rumours of bear problems all afternoon from other travelers and decided that everyone should secure their food in high places away from the furry beasts. One of these high places was the roof of an outhouse commandeered by our expedition commander. Two fellows from Kingston camped with us, believing in safety in numbers.

By late evening we were all around the campfire enjoying fellowship, lies and personal abuse about the day's activities. Despite sore feet and aching muscles, we were all in good spirits. This is not to say that everyone would now volunteer for the same trip again. We had underestimated the work involved in portaging and paddling against the wind.

DAY FOUR. Last night we all prepared ourselves for a night visit from the bears but upon awakening in the morning to the sound of our "Chinese alarm clock" - Sgt Jim Busse banging on two tin pots - we found ourselves unscathed and were just a little disappointed.

The wind, which had been blowing hard



since midnight, presented us with a rather dismal outlook for the day's travel. We departed in a close formation for safety's sake as the water was extremely rough.

There were no smoke breaks or wise comments about paid holidays or pensionable time as we began to ship water and the bowmen very quickly became soaked to the skin.

Halfway down the lake we rounded a point and found our way blocked by large rollers and whitecaps. It was considered prudent to turn back to the safety of an island. Turning back in this type of sea proved a hairy experience and silent prayers were said at one point for Norm Hope and Pete Peterson who were turned broadside in the waves. To the relief of all, they managed to pull to the safety of the island and we began to breathe normally again. This was where the first really critical decision of the trip had to be made. If the wind kept up we would be forced, because of the time factor, to turn south to Canoe Lake on Highway 60 (civilization) where we could phone Base Borden and have our vehicles pick us up at a new destination point.

Irv Winsor jokingly tried to bribe LCol Brogan into turning south to the restaurant at Canoe Lake by offering him two boxes of cigars and a new pipe to

relieve the anguish of his attempt to kick the "pipe smoking" habit. Since nothing could be done until the weather changed, a roaring fire and coffee was in order. We enjoyed conversation with other travellers in the same situation.

By noon the wind had abated somewhat and it was decided to press on. A couple with two small children joined us in the rough crossing. After much back-bending, this part of the crossing was accomplished without incident.

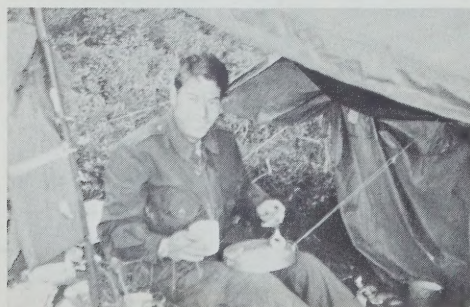
As we were having our lunch two park rangers appeared in an outboard. We made immediate offers to purchase it.

The trip continued uneventfully for the remainder of the day and we made camp at McIntosh Lake after a grossly underestimated 2,100 yard portage was made.

We were nearly a day behind schedule now due to the rough weather encountered. By admission, this had been the roughest day with the danger adding to mental stress as well as extreme physical exertion. It appeared the next day would be a long one in order to be in reasonable position to arrive at the vehicles by noon on Saturday.

Everyone had many aches and pains but portaging was getting a bit easier. We were getting into a system and the loads were getting a bit lighter due to the rapid consumption of rations.

Sitting around the campfire, overlook-





ing a calm lake, with a full moon above, we realized what makes Algonquin Park so famous. There are many beautiful settings, although Rick Kokotailo said he hadn't seen any yet as his head is always down paddling.

DAY FIVE. The first visit by furry beasts was discovered this morning by Dale Graham. Mice or squirrels had found their way into his packsack and had a late night snack of cheese and hot chocolate.

On the creek coming out of Timberwolf Lake we intruded into the domain of four otters who were very perturbed at our presence. One otter surfaced in front of Jim Busse and Keith Delmage's canoe and let out a fierce bark. We thought that otters were more friendly creatures.

Early afternoon found us with 19 long miles behind us since the beginning of the day and well past our original Friday objective. This was our best day as much lost ground was recovered due to everyone working quickly and efficiently as a team.

Our last camp was set up about one hour from our final destination, finally relieving the pressures of the tight schedule we had maintained during the past week. An early supper was ravenously consumed and since we still had three hours of daylight left, we decided to get in a little fishing. Dale Graham and Irv "The Fisherman" Winsor brought in the only luck of the day in the form of three small perch. LCol Brogan and Norm Hope decided to try their luck and got off to a very auspicious start by upsetting their canoe at the landing in less than a foot of water. As can be expected, a fair amount of harassment was handed out about going into the drink after covering some eighty miles of water.

Before sacktime a light lunch was suggested so Dale Graham and Keith Delmage



cooked up a bunch of bannock (bush bread). Spread with margarine and jam, and eaten with good strong coffee, it certainly hit the spot. Capt Keith Morley's comments were an indication of the cooks' culinary abilities.

Jim Busse demonstrated his ability at wolf and coyote calls, retiring to his tent amidst gales of laughter when answered by an owl and then by a loon.

DAY SIX. Camp didn't stir until almost 0800 this morning and we rose to a very misty, chilly day. First priority was a roaring fire provided by Jim Busse and after we had got our joints warmed and working, breakfast and the first shave of the week was undertaken.

By 1030 we were on our way and after a leisurely paddle - the first in a week - we crossed our last 200 yard portage - by now a snap. The last 300 yards turned into a neck-and-neck race with Keith Delmage and Jim Busse coming across the wire half a canoe length ahead of Keith Morley and Rick Kokotailo.

After the gear was lined up ready for the vehicle arrival a good brew was placed on the fire. Some enjoyed a few hands of bridge while others were content to stretch out in the sun and relax. As thoughts of civilization returned we began to wonder how Team Canada had made out in its first game in Russia. A hockey pool was immediately instituted. The trucks arrived at 1230 hours, a sight for sore eyes. The driver informed us that the Russians had won 5-4, Darryl Mason winning the five dollar pool. He commented that he would spend all of it on food at the first restaurant we hit.

We arrived at a restaurant in Huntsville at 1400 and the picnic began, everyone ordering the item they had missed most during the week. Darryl Mason ordered five cheeseburgers and an order of chips for his first course. The waitresses were snowed under with repeat



orders and the word is that they plan a complete renovation of the restaurant with the money that was passed over the counter in payment for our "snack". While all this was going on, Keith Delmage sneaked across the road to a fried chicken joint and made a purchase. Back on the bus he presented Rick Kokotailo with a chicken wing so that he could end the trip as he started.

We arrived back at Base Borden at 1700 hours 23 September and disbursed to our homes for a much needed rest.

I think we all have a tremendous sense of accomplishment and understand ourselves better, having discovered new limits of strength and endurance. Although it was not the swan some had expect-

ed it to be, and despite the many hard miles of portaging and paddling, the week could be summed up as a thoroughly satisfying and successful experience.

* * * * *

The participants:

LCol HW Brogan
Sgt A Busse
Sgt RK Delmage
Capt DA Graham
Sgt NJF Hope
Capt RJ Kokotailo
Sgt DW Mason
Capt KR Morl y
WO PD Peterson
Cpl I Winsor.

OCTOBER IS CFDE MONTH

... the month when every dentist can ensure a brighter future for his chosen profession by sending a tax deductible gift to CFDE.

Each dentist giving \$100 or more in 1972 will be designated as an "Honour Member" in the Fund's progress report which is published in the Journal of the Canadian Dental Association.

CANADIAN FUND FOR DENTAL EDUCATION
234 ST. GEORGE STREET, TORONTO 180, ONTARIO

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A WORKING VISIT TO NEWFOUNDLAND

by WARRANT OFFICER J. HOSSDORF



Dr Seipp presenting WO Hossdorf with Newfoundland dog in brass. (Seated behind Dr Seipp is Dr Peters, President, C.D.A.)

The Newfoundland Dental Association invited 12 Dental Unit to present a table clinic on the *Fluid Resin Technique of Denture Processing* to the Atlantic Provinces Dental Convention in Corner Brook from 17 to 20 September.

In response, Col Bagnall, CO 12 Dental Unit, and Mrs Bagnall travelled by car and carried the equipment for the table clinic; Capt Graham proceeded from his clinic at Gander; and I travelled by air from Halifax via Sydney to Stephenville - an hour and forty minute trip. From Stephenville airport - a former USAF base - a 60 mile drive on new paved highway through picturesque scenery brought me to Corner Brook.

Corner Brook - population 30,000 - lies on the west coast of Newfoundland. It is snuggled deep in the valley of the Bay of Islands and is completely surrounded by the gentle rolling hills of the Long Range Mountains.

After settling at the Glynmill Inn, an ivyclad manor in the Tudor style, I went to register at convention headquarters, at the Holiday Inn, and received instructions as to the sessions I was to attend.

First session was the "Moose's Molar" at the Blomidon Country Club that Sunday evening. There I met Col and Mrs Bagnall and Capt Graham. Mooseburgers were served. Dr RW MacLeod, the convention committee member in charge of entertainment told us, with his heartwarming and down to earth Newfie charm, that all these Newfie jokes we might have heard were first told by Newfoundlanders and they were purposely kept simple, so that the mainlanders could understand them. He also told us - in case we didn't know - that Nova Scotians were Newfoundlanders who had run out of

money on their way to Toronto; New Brunswickers were Newfoundlanders who had a little more money and therefore got a little further on their way to Toronto; and that Prince Edward Island was created when during a big storm the topsoil was blown off Newfoundland and dumped into the Gulf of St Lawrence.

Dr MacLeod then invited everyone to join him in the singing of Newfoundland songs and we learned such ditties as:

*I'se the b'y that builds the boat
and I'se the b'y that sails her.
I'se the b'y that catches the fish
and takes 'em home to Lizer.*

On Monday I visited the various commercial exhibits at the Holiday Inn and also arranged with Dr RD Sexton to set up the table clinic.

During luncheon, held at the Columbus Club, the guest speaker was the Mayor of Corner Brook, Dr Noel Murphy, a medical practitioner. In his speech he gave us an interesting resume of Newfoundland's history:

Newfoundland was first visited by the Vikings about one thousand years ago. Five hundred years later John Cabot sailed from Bristol, England, in the Matthew, to again discover the Newfoundland. For his find he was rewarded by Henry VII with ten pounds - no doubt a handsome sum in those days - 1497. Word passed quickly and soon French, Portugese and others joined the

British in visiting the new land; exploring, charting, and fishing.

Settling in Newfoundland was forbidden and when it did commence, it started on the east coast, the Avalon Peninsula, and the southern shore. The British established at St. John's; the French at Placentia; and the war for Newfoundland continued until 1771. The Treaty of Versailles in 1783 gave the French fishing rights to the west coast from Cape Ray, the southwest tip of Newfoundland, to Cape St. John on the northeast coast. The French continued to exercise these fishing rights until 1904 when, by the Hague Convention, they forfeited all claims. The dispute had lasted from 1653 to 1904 - 269 years.

In 1812 a local reform group in St. John's sent a petition to the British parliament, demanding a legislature. In 1817, for the first time, a governor remained in Newfoundland during the winter. In 1824 a series of acts were passed which, for the first time in British law, recognized Newfoundland as a colony, although not granting an assembly. In 1832 the agitation for representative government at last resulted in the setting up of an elected general assembly. Finally, in 1855, under Governor CH Darling, an executive council - distinct from the legislative council - was created. Philip Francis Little, leader of the victorious Liberal party in the assembly, became the first prime minister of Newfoundland.

The First World War saw the formation of a national coalition government in 1917. The present major political parties really date from the break-up of the government in May 1919 and the formation by Sir Michael Squires of a new Liberal party which won a general election in November 1919.

The depression brought problems with which the Newfoundland governments were unable to cope. The Liberal administration of Sir Richard Squires went down to defeat in 1932 and F.C. Alderdice's United Newfoundland Ministry (Conservative), "unable from its own resources to defray the interest charges on the public debt decided to accept the advice of a joint commission appointed by the United Kingdom, Canada and Newfoundland to the effect that responsible government should be suspended".

From 1934 to 1949 Newfoundland was ruled by a governor and a commission of

government, appointed by the government of the United Kingdom and consisting of three Newfoundlanders and three non-Newfoundlanders. The governor presided at meetings of the commission and laws were enacted by a majority vote.

During the Second World War, Newfoundland occupied a strategic position in the Battle of the Atlantic and in 1940 the United Kingdom leased certain areas to the United States for 99 years for defence purposes. Large naval and air bases were established, and both during and after the war, American defence spending was a major source of income for Newfoundland.

Following the advent to power of the British Labour party in 1945, arrangements were made for the election of a national convention to decide the future of Newfoundland. Major Peter Cashin, a former minister of finance, advocated a return to the pre-1934 constitution, while Joseph R Smallwood emerged as the leading advocate of federal union with Canada. A referendum in 1948 resulted in a 52% majority for confederation. On 1 April 1949, the Hon FG Bradley, who had been solicitor general under Sir Richard Squires, entered the St Laurent administration in Ottawa, while the Hon. JR Smallwood became first premier of the new province of Newfoundland.

Dr Noel Murphy then gave us a short history of Corner Brook.

Corner Brook is named for the stream which gently flows through the center of the city. The famous British explorer and surveyor, Capt James Cook, RN, carried out a survey of Newfoundland waters from 1764 to 1767. His charts are still in use. Many people believe Capt Cook named the stream after which Corner Brook is named.

In 1864 Mr Gay Silver of Halifax arrived and constructed a sawmill. With him came a number of carpenters and woodsmen from Nova Scotia and New Brunswick. In 1867 Corner Brook had a population of less than a hundred, augmented by men from the east coast of Newfoundland who fished the Strait of Belle Isle in the summer and worked in the lumber woods in the winter. The sawmill changed hands in 1871 and became the property of the Halifax firm of Burns and Murray. In 1872 more lumbermen and millmen came from Nova Scotia including Christopher Martin Fisher and his family. In 1882

Fisher became owner of the sawmill and successfully carried on the operation for 41 years. The trans-insular railway was built through Corner Brook in 1896 although the regional headquarters was set up in Humbermouth. In 1911 there were 382 inhabitants. In the post First World War depression era, through action by the premier, Sir Richard Squires, the Armstrong Witworth Company constructed a pulp and paper mill, power house and transmission line. Taken over by the Newfoundland Power and Paper Co., it operated until it was taken over by the Bowater Company in 1938 and who still operate the company.

Following the Second World War came a cement plant, gypsum wall board plant, pre-stressed concrete products and other allied plants. Corner Brook became the distribution centre by road, rail and sea for central and western Newfoundland and southern Labrador.

Four towns were amalgamated in 1956 - Curling, West Corner Brook, Townsite and Corner Brook East - to form the city of Corner Brook.

Today a modern growing city with modern schools, factories, homes and many other facilities and a population of over 30,000, Corner Brook has become a bustling centre - truly the "Hub of the Province".

On Monday evening we gathered at the Arts and Culture Centre for more Newfoundland entertainment entitled "What you see is what you gets". We heard Newfie songs and jokes and saw humorous skits and a speech by ex-premier-impersonated Joe Smallwood. It was hilarious.

Early Tuesday morning we set up the table clinic at the Holiday Inn. All the tools, pots and instruments used in the technique, as well as the introductory kit, were displayed. I showed three cases in consecutive stages of processing and also projected 62 slides provided by the CFDS School. The slides, shown in continuous succession, showed



Col Bagnall and WO Hossdorf explaining technique to Dr Narciso Pereyas, a new Canadian from the Philippines, now living in Corner Brook.

the technique clearly and comprehensively. Judging by the number of interested visitors and numerous questions I had to answer, the table clinic was successful. At the table clinicians luncheon at the Glynmill Inn, Dr RF Seipp of the convention committee presented me with a replica of a Newfoundland dog, cast in brass, as a token of appreciation.

The speakers at the luncheon were Dr Peters, president of the C.D.A. and Dr MacIntosh, executive director of the C.D.A. Dr MacIntosh displayed some slides of the proposed dental centre to be built in Ottawa at a cost of \$200,000.

On Tuesday evening we all gathered in more or less formal attire at the Monaghan Hall for the Presidents dinner and ball, lasting far into the wee small hours of the morning.

The last session of this convention was a closing luncheon at the Holiday Inn on Wednesday followed by farewells and expressions of appreciation for a great experience and a wonderful time.

2nd INTERNATIONAL
CONGRESS ON
DENTISTRY

... for the Handicapped

APRIL 22-24, 1974
LONDON, ENGLAND

The Second International Congress on Dentistry for the Handicapped, sponsored by the Academy of Dentistry for the Handicapped, will take place in London, England 22-24 April 1974.

The meeting will be devoted to several phases of dentistry for the handicapped, among which will be oral facial deformities, management and treatment of patients, prevention, dental student curriculum education and genetics.

Individuals interested in program participation and for further details of the meeting please write:

Manual M. Album, DDS, General Chairman,
Medical Arts Building,
Hillside Avenue at York Road,
Jenkintown, Pa., U.S.A. 19046.

CFDS NEWS

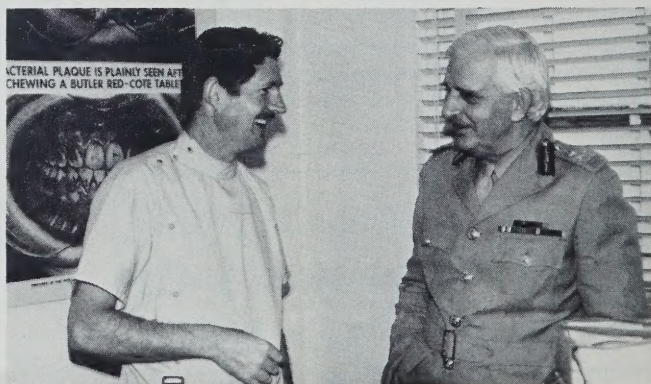
VISITORS

Major-General JH Robertson, LDS, QHDS, FDS, RCS, the Director of the Army Dental Service, was in Canada from 7 to 11 August. During this time he visited the clinics and laboratory in the Ottawa area, and the clinic and equipment depot in Petawawa.

Major-General Robertson showed particular interest in the preventive dentistry program and the laboratory services.

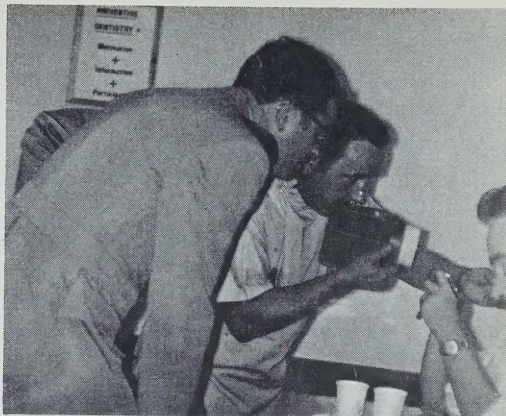
The Director of Dental Services for the Royal Australian Air Force, Group Captain RG Sharp, BDS, DPH(Dent), FACDS, FICD, visited Ottawa from 7 to 11 October. Dental matters were discussed at DGDS and NDHQ dental clinic and laboratory.

*MGen Robertson with
Maj JLY Cyrenne at
a brush-in, CFB Up-
lands.*



Commander R Terhune, Preventive Dentistry Officer for the United States Navy toured Canadian Forces Dental Services facilities during the week of 23-29 July to observe preventive dentistry and training.

*At CFB Trenton.
A demonstration
by MWO Kidd.*



*With LCol Begin,
LCol Chatwin and
Maj Charles at
Meaford, observ-
ing the CFDSS
participating in
a field exercise.*



Viewing an orthopantomograph with Ms Kelso and Aubin in the NDHQ Clinic.

DOTP SUMMER TRAINING

Once again the "summer soldiers" made their annual pilgrimage to Borden and the CFDSS to undertake phase training. After an initial shakedown (haircuts) they settled in to learn a little more about their profession and gain a solid military background to enable them to meld into the Canadian Forces Dental Services upon graduation.

Some candidates arrived late so clinical and laboratory procedures were not as extensive as planned. Consequently, the Chief Instructor's Trophy for clinical procedures was not presented this year. The field exercise however, made up for the shortcomings in these areas.

A week at the Meaford training area attached to the Base Borden service battalion proved to be a worthwhile and interesting experience. From a logistic point of view the candidates observed and could appreciate the problems involved in supporting troops in the field.

Graduation ceremonies concluded the long, hot summer. The DGDS, BGen Garth C Evans was unable to attend because of sudden illness. Col LG Craigie, Commandant CFDSS filled the void as Reviewing Officer for the final parade and presented the awards.



2Lt JERJ Gauthier, University of Montreal, receiving the Third Phase Honour Cadet Trophy.



2Lt RE Riley, University of Alberta, receiving the Second Phase Honour Cadet Trophy.



2Lt RA Hodge, University of Western Ontario, receiving the Third Phase Honour Cadet Runner-up Trophy.



2Lt RG Smith, University of Alberta, receiving the Second Phase Honour Cadet Runner-up Trophy.

WHAT NATIONAL CERTIFICATION CAN MEAN TO YOU*

by Mrs Trudy McNamee

National certification can mean prestige. It shows that you are interested in your profession and take the time and the effort to study, to keep up with what's going on, what has taken place, and what is planned for the future. It shows that you are an active dental nurse who has studied for and successfully passed a difficult examination, and are willing to continue learning.

National certification can be an asset to anyone who might want to "spread her wings". To the service dental assistants who don't know just what province they might be in when they leave the Forces, national certification can be the key to getting civilian employment.

Dental assistants married to servicemen moving from one part of the country to another would find that national certification would open many doors for them.

Both Service dental nurses and civilians employed with the Forces should look into national certification, become active members of local associations, and apply to the local chairman for information concerning certification. Or ... contact Trudy McNamee at the CFHQ Dental Clinic in Ottawa.

**Published with consent of the executive of the Male Dental Assistant Liberation Movement.*

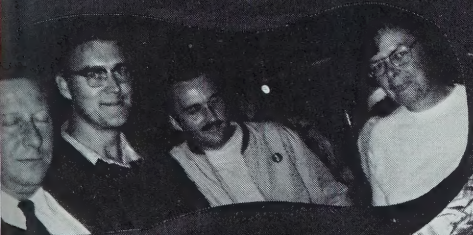
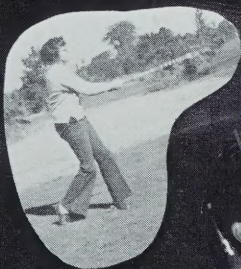
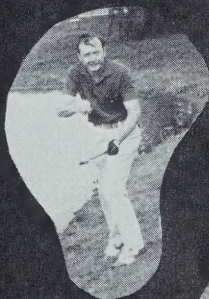
NATIONALLY CERTIFIED DENTAL NURSES

These dental nurses have successfully passed the examination for national certification and have been awarded pins and diplomas. They are the first in the Province of Ontario to receive this honour.



(L to R) Front: Mrs Eve Wilkinson, Mrs Hazel Gervin, Mrs Anne Seale. Back: Miss Lola Hyndman, Mrs Hildrid Rowley, Mrs Trudy McNamee. Mrs June Howe, missing from the photo, is stationed with her husband at CFS Inuvik.





Tenth Annual CFDS Golf Tournament



BGen Evans presenting the RCDC (R) Officers Trophy to 13 Dental Unit Team: Sgt GM Anderson, Maj IAC MacDonald and WO RE Todd, for lowest gross aggregate score over 36 holes.

BGen KM Baird presenting the KM Baird Trophy to Sgt MJ Hall, 15 Dental Unit, for low gross score over 36 holes.



Col GR Covey presenting the GR Covey Trophy to Sgt GM Anderson, 13 Dental Unit, for low gross score over 18 holes.

The tournament this year, although a week later than last year, was blessed by King Sol who gave us two summer-like days.

A black and white photograph of three men in military uniforms standing together. The man on the left is wearing a flight suit and a flight helmet, holding a large, round, white object. The man in the middle is wearing a flight suit and a flight helmet, holding a large, white, rectangular object. The man on the right is wearing a flight suit and a flight helmet, holding a large, white, rectangular object. They are all smiling and looking at the camera. The background is a plain, light-colored wall.

We welcome aboard the new crew: Capt P Williams, Sgts Hardy and Mackie; and wish them all the merriment and comradeship we enjoyed.

officer to medical adm officer, has been posted to CFIEM in Toronto ... Capt JR Savoie, reclassified from DAO to logistics officer, is attending a logistics officer conversion course at CFSAL in Borden ... Miss Anne Chretien, hygienist at Longue Pointe, visited London, Paris, Venice, Florence, Capri, Rome and also toured Switzerland on a recent trip to Europe ... Also in Europe, Major and Mrs Jacques Nadeau visited Innsbruck, Garmisch and attended the Oktoberfest in Munich, then Paris, Strassbourg, Switzerland and Austria. They climaxed their tour by an audience with the Pope at his summer palace.

New Valcartier Clinic



The new hospital and dental clinic at Valcartier is an impressive building and has been named *Michel Sarrazin* to honour the first professionally trained doctor to come to New France as a regimental medical officer late in the 17th century.

BGen GC Evans and LCol G MacDougall were among the guests attending the official opening of the building.



The old clinic

Sports

15 Dental Unit was well represented at the CFDS annual golf tournament in Trenton. We have a claim to fame in this event since one of our members, Sgt Mat Hall, was winner of the KM Baird Trophy ... 15 Dental Unit had its own golf tournament at the Chambly course following a conference for base dental officers on 8 September. 22 members participated and Major Gerry Bisaillon took top honours - at golf ... MWO Torrens of St Jean clinic was a finalist in the Service Women's Golf Championship for Area 3.

Maj George Jacques and Cpl Frechette recently returned from a moose hunting trip in the wilds of northern Quebec. They didn't bring back a trophy but promise to do so next year - when the moose will be that much bigger. We wonder if all hunters are that considerate?

1 DENTAL UNIT

by Warrant Officer J.A. Patterson

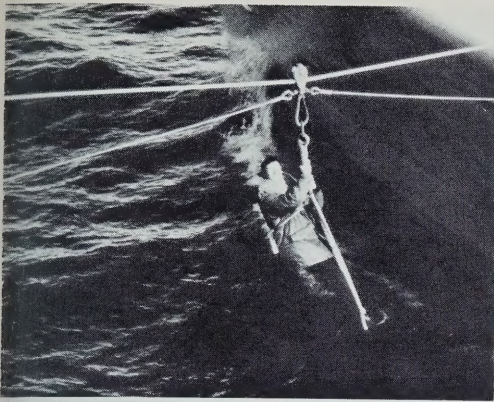
Northbound

Two dental teams: Capt Floyd Jackson/Sgt Jack and Capt Gunther/Cpl Mountain, aboard HMCS *Protecteur*, participated in Exercise NORPLAY during August. Port calls were made at Lake Harbour, Baffin Islands and Wakeham Bay. They provided dental treatment and starred in a DND film on the contributions of the Armed Forces to the civilian population.

Capt Jackson reported that the seas were favourable, the natives friendly and the hours long. Both the cargo of "coke and candy" and the dental treatment were enthusiastically received. One civilian observed that the dental teams were "Indian givers" - giving with one hand and taking away with the other.

Capt Jackson ran the gamut of his emotions, from terror to relief, going to and from HMCS *Fraser* via the jackstay - an ingenious apparatus slung on what appeared to be an unnecessarily thin rope to transfer personnel from one ship to another while the ships are moving at full speed.

Maybe next year we can "volunteer" these teams for a trip to the south ...



Promotion

June Patterson, promoted Warrant Officer in July, is the first female dental assistant to achieve this rank.



June being "pinned" at CFB Uplands by Col Thomas-Peter and Col Wark.

Sports

The annual competition for the Gazo Trophy was held at the Uplands Golf and Country Club. Maj Budzinski won the prize for the longest golf drive ... The annual 1 Dental Unit golf tournament was held at the Poplar Grove golf course on 16 August.



Trophies donated by Mr Luc Boulaine of the Dental Depot of Canada were won by Maj Marcil for low gross score and by Pte Dawn Duncan for "Fun Golf".

14 DENTAL UNIT

by Mrs M Dykes

Cold Lake

Col WR Thompson, CO 13 Dental Unit, visited Cold Lake clinic in late June to render specialist treatment and clear up a backlog of difficult oral surgical procedures which had accumulated.



(L to R) Seated: Col Thompson and LCol JJJ Wright. Standing: Capt RW Rix, Maj HJ Marion, Capt CG Milne, Capt GA Boulanger, Capt AP Charlebois and Capt DR Wright.

Prairie Patter

The dental clinic at CFS Gypsumville was closed as a full-time clinic in August. Maj CH Hawkins was posted to SHAPE and Mrs D Bennett ceased employment. CFB Winnipeg detachment take over the dental treatment chores ... Maj WR Collier was the conducting officer for the visit of his brother, BGen AL Collier, at CFB Edmonton recently ... Capt RS Sorochan and Cpl R Jones, recent graduates of the High Altitude Indoctrination Course, are now anxiously awaiting some practical use of their new qualifications ... A Manitoba telephone company crew, working around MWO Abernethy's house trailer this summer, accidentally set it ablaze, causing \$700 damage ... quite a house warming? ... Sgt DW Hardy, CFB Calgary detachment, is spending the next six months in Cyprus ... LCol HR Kettys, WO HD Wagstaff and Sgt JF Hill were on TD in early July to Banff to provide preventive dentistry to the cadets ... Far away places: Mrs Vin Phillippe to Hawaii; Maj RJ Paturel to Scandinavia; Cpl RJ Street to Europe ... Capt RCA Fearon, as well as being the official source of sex education at CFS Alsask, has been appointed the Honorary PMC of the Junior Ranks Mess and the entertainment officer for the Officers Mess ... Maj RH Headley has been busy fighting off bids from antique dealers and historical societies for the old Currie Barracks dental clinic at CFB Calgary. After seeing the blueprints for the new proposed clinic, he's toying with the idea of giving the old clinic to the City

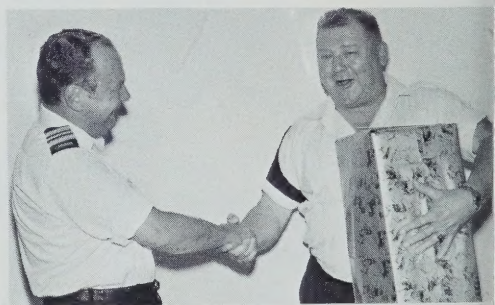
of Calgary for inclusion in the Pioneer Village at Heritage Park ... A clinic party at CFB Cold Lake bid farewell to Cpl J Van Hemert who is leaving the Forces and retreating to Nelson B.C., and to MCpl MM Daniels on her posting to 35 Field Dental Unit.

Retirement

MWO Doug Mann has retired from the Forces on reaching CRA, completing almost 32 years with the dental services.

A farewell get-together was held for him at the CFB Winnipeg detachment and he was honoured at a formal Mess Dinner in the CFB Winnipeg WOs and Sgts Mess.

Doug is returning to live in the Ottawa area.



Maj IW Susser presenting MWO Mann with a retirement gift - an ice bucket and decanter.

Sports

Cpl RJ Jones is a member of the CFB Moose Jaw soccer team, winners in the Prairie Region soccer finals ... MCpl MGE Williams coached the CFB Cold Lake soccer team in the same championships ... He has now been posted to 35 Field Dental Unit where he should be able to obtain some more practical experience and skill in this game ... Cpl JJ Vase was injured in a parachute jumping demonstration. Doesn't he know that anyone who jumps out of a perfectly good airplane has got to be nuts? ... One time this summer Cpl RJ Tallack was reported to have collapsed on a local Winnipeg golf course due to dehydration. One hears of golfers consuming too much liquid, but too little? Golfing is a drinking man's game, Roy!

35 FIELD DENTAL UNIT

by Sergeant W.B. Looker

Have You Heard?

Capt Ron Gish underwent interrogation by the military police. "Someone" had taped Russian license plates on his car ... Jim Bleakney and Ron Gish have power scooters to bring them to work in the rain ... Bev Gilkes has amassed a total of 31 medals for taking walks in the woods ... ???

Horse's Head Rears

This summer, a golf tournament and a baseball game were played between Lahr and Baden clinics to determine ownership of the now famous Horse's Head Trophy.

The results of the golf game were close with Lahr outshooting Baden due mainly to the fine 89 carded by Terry James. The host team won individual honors as Jerry Lamontagne blazed around in 81. However, overall total low gross award was narrowly won by Lahr. A local gasthaus provided great food while players and wives discussed the flubbed drives and near misses.



Top: THE LAHR FANGS

Bottom: THE BADEN BOOBOOS

The physical condition of Major Boucher's ball team proved valuable on the field. Jerry Craig is still amazed that he could stop the line drive on second and John Fret was relieved that no flies were hit into his field - frankly, so was his team. Final score: Lahr Fangs 26; Baden Boobos 10.

A family barbecue was held after the game at the Lahr clinic with 65 in attendance. An over-confident Baden team had left the Horse's Head at home. Perhaps next year ...



Lahr Golfers



After-game activities

12 DENTAL UNIT

by Lieutenant D.E. Fraser

Visiting

Col SG Bagnall, Capt EW Graham and WO J Hossdorf attended the Atlantic Provinces Dental Convention in Corner Brook, Newfoundland, 17-20 September ... BGen Lett and Col Conners (new base commander CFB Cornwallis), toured the Cornwallis dental clinic in August ... Col H Smale, CFB Greenwood base commander accompanied RAdm R Timbrell on a visit through the dental clinic at Greenwood recently. The clinic was completed as a winter works project.

Squid Jigging

Capt G Gunther and Capt F Jackson (of Ottawa), assisted by Sgt A Jack and Cpl T Mountain, sailed Canada's northern waters on Exercise NORPLOY 1972. The dental teams employed a two-shift schedule resulting in a complete dental survey of the ships on the exercise. The opportunity to screen a large number of sea element personnel does not present itself often enough ... the dental detachments at CFBs Cornwallis and Greenwood are sporting bilingual signs as per the suggestion (?) of the DGDS ... At Base Galetown, Maj Petrie was Reviewing Officer for the graduation parade of a group of cadets ... Sgt Longford has been travelling lately by helicopter between Galetown and Chatham. It seems that trips coincide frequently with calls for needed dental repairs.

Sports

MWO Tanner, representing the WOs and Sgts Mess, won a prize with a one-pound, 14½ inches long trout in the Cornwallis annual fishing derby ... Capt J Delong and Sgt H Kalmel spent part of their recent leave in the woods hunting for moose. Sgt Kalmel luckily won a moose license and Capt Delong guided the hopeful hunter to what was believed to be good moose country. No, we haven't heard a word about a trophy.

13 DENTAL UNIT

International Golf Tournament

The Petawawa Golf Course was the scene of the annual international golf classic between George Windsor of Petawawa and Harold Windsor of Syracuse, New York.

The Windsors are brothers from Kamsask, Saskatchewan, where they played golf in their early childhood. According to Harold, the first game they played was known as polo-golf and the idea was to hit the ball with one hand on the dead run, run after it hell bent for election and smash it again all the way around the course. The shortest time around the course, not the number of strokes, decided the winner.



Harold went to the United States in 1950 where, as the "mad chemist" he has been trying to perfect a golf ball that will obey thought waves - good only for people who can think straight. George, on the other hand, stayed in Canada, where he received his DDS, MGL and NBC (that's Dandy Dental Surgeon, Master of the Golf Links and Not Bad Curler).

Last year's Tournament of Champions was held in Halifax, where Canada did exceptionally well. This year, however, at the conclusion of 142 holes, the U.S. won by a slight margin.

Next year the match will be held in New York State, provided all agreements regarding contracts, T.V. rights, endorsements, accommodation and swimming pools meet with managerial approval.

Reported by Ann Clarke

DENTAL SERVICES SCHOOL

by Warrant Officer P.D. Peterson

Coming ... and Going

Sgt Helen Bigras (nee Swiatkevich) arrived recently from CFB Trenton ... LCol PS Sills is retiring to the University of Western Ontario after a 23 year career in the Dental Services ... LCol JF Begin is posted to CFB St Jean.

Visits

Commander R Terhune, US Navy Preventive Dentistry Officer, accompanied by LCol JVP Chatwin, arrived at CFDSS in July to discuss preventive dentistry planning and to observe the training program. ... Maj MN Deyette was at the school early August to conduct personal interviews ... CWO Jack Sadler spent June and July in balmy Cleveland, Tennessee and Louisville, Kentucky, on loan to the U.S. National Institute of Health. CWO Sadler spent his time as a dental therapist instructor in a pilot course for the State of Tennessee. By all accounts hospitality plus was the order of the day, making off-duty hours very easy to bear.

Awards

CWO Mike McDonald received a first clasp to his CD in July after 22 years of undetected crime.

Travel

In order to make sure they would be unavailable during their leave, some of the School staff placed a few thousand miles between them and Borden: Col LG Craigie vacationed in Hawaii; Mrs C Clarke travelled through England and Scotland; Capt Fred Marentette toured England and France.

CFDSS Golf Day

It was a beautiful day for golf - rain showers with sudden downpours in between - but the Commandant said it was a beautiful day, so that's what it was.

Some observations on the behaviour of that strange animal, the "golfer" -

Tee No 1 ... Robbie Robinson further from the green on his third shot than he was on his second. Impossible? Not

when you lose an argument with a tree.

Tee No 5 ... MWO Earle Mazerall requesting travelling time to look for his ball.

Tee No 7 ... MCpl Andy Violette renting out frogs at the waterhole, claiming they could smell out golf balls buried in the mud.

Capt Keith Morley was going to offer his services as a student pilot to act as a ball marker, but claims he was hijacked and had to fly a Third Phase cadet to Angus.



Are you sure that fella in the see-through shirt winked at me, Earle?



... Let's see ... whose turn is it to buy me another beer ... Mazerall? ... Laurence? ... Reid? ...

Professional Training

University of Toronto

Periodontics

Maj JAR Fortier, Sep 1972-July 1974

Public Health

Maj JB Houde, Sep 1972-May 1973.

LCol JJY Turcotte

has completed oral surgery residency at Doctors' Hospital, Toronto. He is a 1958 graduate of the University of Montreal and is now at CFB Valcartier. Previous service has been in both Canada and Europe.



Major DG Jones has completed the requirements for certification as a specialist in periodontics by a two-year course at Walter Reed Army Medical Center in Washington DC. He is now with 13 Dental Unit at Trenton. Previous service was in Montreal, Shilo and Europe. He is a 1965 graduate of the University of Manitoba.

Major PR McQueen

recently received a diploma in dental public health after a one-year course at the University of Toronto. A 1963 graduate of the University of Alberta, Maj McQueen is now stationed at CFDSS. Previous appointments were at CFB Rockcliffe and Rivers.



Canadian Forces Training

CF Dental Services School

Third Phase DOTP, 30 May - 4 Aug 72
2Lts RP Alberti, JP Beauchemin, CB

Bullock, JA Casey, WJ Dawson, MW Gariot, JERJ Gauthier, RA Hodge, KW Howie, GD Huff, KB Musselman, JRRL Trotter, JWG Valois, JEP Lavallee, JPR Levesque.

Second Phase DOTP, 28 Jun - 4 Aug 72
2Lts DG Amundrud, WS Armstrong, JD Bays, TB Cadden, JAG Chaume, RL Crowthwait, AR Gauthier, BD Hamilton, RK Hockney, SR Keddy, WA Maillet, JDR Naysmith, DH Ragan, DE Rawson, RE Riley, RG Smith, RE Thomas, WB Wiseman, TJ Yamasaki.

Dental Clinical Assistant PL6, 19 Sep - 19 Oct 72

Sgts N Demedash, DJ Hollins, GK MacDonald, DJ Morphet, DT Hurley, W Olynk, WE Tweed, MCpls MM Daniels, HB George, Cpls JG Bernier, GL Brophy, AD Hurley, R Jones, WR McIntosh.

Cold Lake

French Language Training

27 Aug 71 - 30 Jun 72

Cpl(W) MR Williams, WO N Cable

CF Warrant Officers School

WO Qualifying Course

WO(W) JM Patterson

CF Management School

Middle Management, 27 Aug-21 Sep 72
Lt DE Fraser

CF Staff School

Junior Staff Course, 5 Sep-10 Nov 72
Capt WA Jackson

Simon Fraser University

Underwater Instructors Course, 26 Aug - 2 Sep 72
Maj JL McNeill

Training with Industry

Ticonium Co, Albany NY

Advanced Ticonium Techniques

21-25 Aug 72
WOS DC Hughes, M Beauvais,
23-27 Oct 72
WO JA Christiansen

Ticonium Equipment, 25-29 Sep 72
Cpl LJ Kalman

Ritter Dental Equipment Co, Rochester NY

Ritter Dental Equipment, 9-20 Oct 72
Cpl JA Wesley

Promotions

Lieutenant-Colonel

JF Begin, 28 Aug 72. LCol Begin is a 1959 graduate of the University of Montreal and is now serving as base dental officer at CFB St Jean. His previous appointments included CFDSS in Borden, Winnipeg and Germany.



MN Deyette, 28 Aug 72. LCol Deyette is now at NDHQ. Previous appointments were at CFBs Petawawa and London and in Europe. He is a 1961 graduate of the University of Toronto and a 1970 graduate of the CF Staff College in Toronto.



Major: MB Fisk, DL Brown, WA Gray, CH Hawkins, EL MacInnes

Captain: JPR Levesque, B Vandervaat, LR Hatcher, WA Jackson, RJ Kokotailo

Master Warrant Officer: W Parker

Warrant Officer: HJ McKinnon, JM Patterson

Sergeant: GM Anderson, D Frerichs, BA Green, DW Griffiths, MY Fletcher, DT Langford

Master Corporal: JE Dale, AD Hurley, JLA Violette, RL Solomon, JF Bulson, WR McIntosh, MGE Williams, HB George, F Gayler

Corporal: PJ Lunney

Errata: The Editor regrets the following were shown promoted Captain in error in the July 1972 issue of *The Quarterly*: 2Lts JD Bays, WA Keddy, TN Tamaski, WA Maillet.

Welcome * Bienvenue

A cordial welcome to the Canadian Forces Dental Services is extended to: Sgt JR Curtis, Miss DH Moore, Mrs C Misseau, Mrs PL Keyes and Cpl Spencer.

Au Revoir * Farewell

The best of luck to: LCol NA Butcher, MWO CD Mann, Mrs M Roberge, Miss J Dobson, MCpl MJ Michiels, Sgt WG Harmer, WO SH Lunnin, Mrs D Bennett, Mrs DL Bowes, Capt RJ Shirkey, LCol PS Sills, Cpl J Van Hemert, Mrs Joyce Rutherford, Sgt ES Beattie.

Vital Statistics

Marriages

Congratulations and many years of happiness to: Pte(W) MS Chaisson and Pte KR Lamont; Mrs Joyce Rutherford and Mr Larry Schiel.

Births

Sons: Maj and Mrs BA Gaudet; Capt and Mrs RE Fletcher; Sgt and Mrs WK Jeneraux; 2Lt and Mrs RB Johnson; Capt and Mrs DF Clark; Capt and Mrs TP Levy.

Daughters: Capt and Mrs Margetts; Capt and Mrs DA Graham; MCpl and Mrs CH Forsythe; Capt and Mrs FJ Marentette; Capt and Mrs Steel; Capt and Mrs JJ Lemieux; Pte and Mrs LJ Cote; Sgt and Mrs WE Tweed; Pte and Mrs D Bowering.



Shown above is a self-service display of preventive dentistry homecare products at the CFP Petawawa CANEX gift shop. The display was arranged by Major Nye, Petawawa preventive dentistry officer and Capt Oades, base exchange officer.

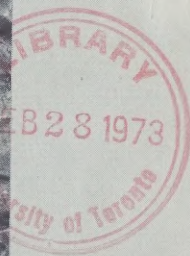
Dent

The
**CANADIAN
FORCES
DENTAL
SERVICES**
Quarterly

VOLUME THIRTEEN · NUMBER FOUR · JANUARY 1973



BRIGADIER ELGIN McKINNON WANSBROUGH
OBE, MM, ED, CD, OHDS,
DDS, FICD, FACD.
1898 - 1970





The CFDS Quarterly



· VOLUME 13 · NUMBER 4 · JANUARY 1973 ·

Published by authority of Brigadier-General Garth C Evans, CD, QHDS, DDS, FICD, in April, July, October and January, The Quarterly serves as a means for the exchange of ideas, experiences and information within the Canadian Forces Dental Services. Views and opinions expressed are those of the authors and not necessarily those of the Director General of Dental Services or the Department of National Defence.

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Cover Photo

*Dedication of Wansbrough
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The CFDS Quarterly may be subscribed for at \$6.00 per year by writing to:

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Better amalgams through burnishing

Gerald E. Denehy, D.D.S., M.S., and
Kai Chiu Chan, D.D.S., M.S.

DIGEST

Advances in amalgam composition and research ensure that amalgam will retain its prominent place among restorative materials in spite of the many new restorative materials available today. Variance in size and shape of alloy particles and addition or subtraction of various alloy components provides improved manipulation and physical properties. Proper burnishing with materials and methods described here increases surface smoothness, reduces mercury emissions, and decreases marginal leakage and corrodibility.

Over the past years, amalgam has been used in the field of restorative dentistry to an extent unparalleled by any of the other dental restorative materials. Despite the fact that it has often been the object of controversy and occasionally has been referred to as one of the "inferior" restorative materials, amalgam has shown the capacity to provide a serviceable restoration even when grossly misused.

With the advent of many new restorative materials, dentists often tend to overlook the advances in research done with amalgam. Recent changes in amalgam composition, including variances in size and shape of alloy particles and addition or elimination of various alloy components have now given the dentist a selection of amalgam manipulation characteristics and physical properties never before available.

To produce a quality amalgam re-

storation, however, more is necessary than just a good material from a well-known manufacturer. The final restoration is only as good as the operator who places it and the techniques he employs. Even when a conscientious dentist is using a material to the best of his abilities, certain misconceptions he has about the material may affect the final quality of the restoration. Recent research has shown that one common misconception is that of burnishing.

Literature review

In the past, dentists have been taught that burnishing the amalgam restoration before it has reached its final set is extremely detrimental. G. V. Black in his historic textbook on operative dentistry recommended that there be no burnishing, stating that amalgam would be drawn away from the wall on one side when it was being pressed by the burnisher to the other wall.¹

Sweeney stated that burnishing weakened the amalgam primarily in the marginal and sharp angle areas of the preparation.² Phillips agreed with the weakening theory, stating that burnishing draws excess mercury to the surface resulting also in increased tarnishing and corrosion at the margins.³ Although others have agreed with the detrimental effects of burnishing,^{4 5} most of the statements have been based on specula-

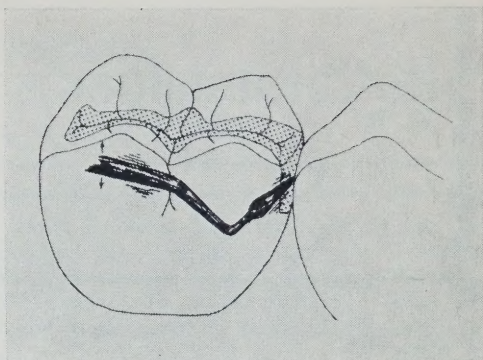
tions and are not supported by research or clinical evidence.

Recent research has not only disproved the theory that burnishing amalgam is detrimental but, in fact, shows that burnishing may be very beneficial to the final restoration. In one of the earlier studies, Kanai found that burnishing reduced the micropores and decreased the residual mercury.⁶ Other studies followed showing increased physical properties including greater surface smoothness and a decrease in marginal leakage with burnishing.⁷ A mercury emission study recently conducted states that burnishing tends to reduce the dissipation of mercury vapor from the surface of dental amalgam.⁸ Corrodibility has been shown to be less on burnished specimens than on unburnished polished specimens and significantly less than on unburnished unpolished specimens.⁹

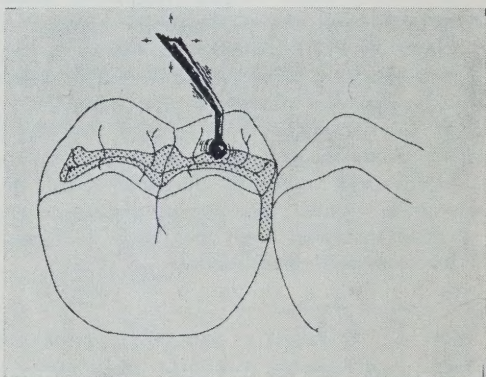
Materials and methods

The most convenient burnishers which are used in burnishing an amalgam restoration are a double-ended "football" shaped burnisher* and a double-ended "ball" shaped burnisher.** The double end allows for differences in size and shapes for different areas of the restoration. The "football" burnishers work best on the proximal surfaces and margins and marginal ridge areas (Fig. 1). The larger "ball" burnisher works well on the inclined planes and occlusal margins (Fig. 2) and the small "ball" burnisher is excellent for defining the occlusal anatomy (Fig. 3). While the previously described burnishers are recommended, a dentist may use any shape or type of burnisher which he feels works best for him.

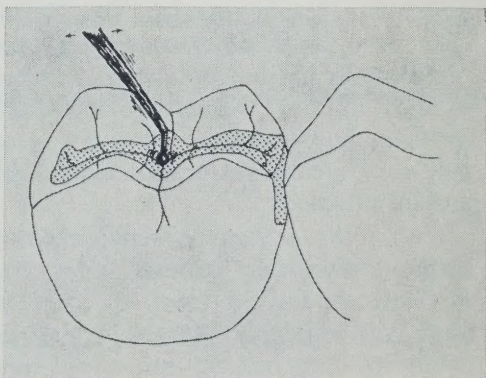
Burnishing should be done with even pressure, in a back and forth motion on the amalgam and marginal areas,



BURNISHING THE PROXIMAL SURFACE and margins with the "football" shaped burnisher. Fig. 1.



BURNISHING THE INCLINED PLANES and occlusal margins with the large "ball" burnisher. Fig. 2.



DEFINING THE ANATOMICAL GROOVES with the small "ball" burnisher. Fig. 3.

and should basically be a two-stage process. First, the amalgam should be properly condensed and grossly carved.

Then it should be burnished after it has started its initial set. At this time, the anatomy may be well defined with the small ball burnisher and the rest of the amalgam and margins burnished with a light burnishing pressure. Any recontouring or removal of flash may now be accomplished with the carver. The restoration should be checked for occlusion, any prematurities removed, and then the final burnishing should take place. By this time the amalgam should have set to a hard consistency, and firm burnishing pressure may be used over the entire restoration especially on the margins. Because of the time factor, the faster setting alloys are recommended for burnishing.

While burnishing may require a slightly greater amount of the operator's time when the restoration is placed, this is more than compensated for by the virtual elimination of time consuming polishing procedures. If later polishing is deemed necessary, usually minimal procedures will suffice.

Discussion

Although amalgam is a relatively stable material, physical changes do occur in the restoration after it has reached its final set. This is easily demonstrated by the evidence of corrosion, tarnishing, and marginal breakdown present in many amalgams after several years of service. Proper polishing procedures greatly decrease this physical breakdown. The majority of amalgams, however, are not polished sufficiently to prevent this deterioration.

Both authors have been burnishing amalgams on a clinical study basis for the past three years. Follow-up observations on these restorations have shown some interesting results. All properly burnished amalgams have remained vir-

tually unchanged. This is true for both burnished restorations which have been polished and those which have remained unpolished. Marginal breakdown is negligible and no corrosion or tarnish has been noted.

One possible explanation of these findings is that burnishing is actually a continuation of the condensation process after carving. The net result is that weak marginal areas and areas of flash are removed at the time of burnishing rather than later during mastication. Through the burnishing process, the amalgam is compressed and "prechewed" resulting in a margin that is strong, tight, and secure.

Summary

Recent research has shown burnishing the amalgam restoration to be beneficial to the physical properties of the final restoration. Release of surface mercury vapor is decreased, micropores are closed, corrodibility is significantly less, and there is a greater surface smoothness with decreased marginal leakage after burnishing.

Instruments and a technique for burnishing have been described.

To produce an amalgam with optimum physical properties and provide the maximum service to his patient, it is recommended that a dentist use a good quality alloy. He should know the working properties of this alloy and manipulate it to the best of his ability. And finally, the dentist should thoroughly burnish all amalgam restorations.

**Department of Operative Dentistry
The University of Iowa
College of Dentistry
Iowa City, Iowa 52240**

*Hollenback Number 7.

**Hollenback Number 6.

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The authors...

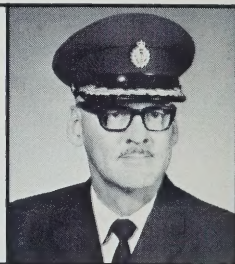
GERALD E. DENEHY, D.D.S. (Loma Linda University, School of Dentistry, 1968), **M.S.** (The University of Iowa College of Dentistry, 1970) has published once previously in DIGEST. He is Assistant Professor in the Department of Operative Dentistry and Endodontics, College of Dentistry, The University of Iowa. Among his affiliations are the American Dental Association and the American Association of Dental Schools. His coauthor, **KAI CHIU CHAN, M.S.** (University of Iowa, 1964), **D.D.S.** (The University of Iowa, College of Dentistry, 1967), is Associate Professor in the Department of Operative Dentistry, The University of Iowa, College of Dentistry. He has done extensive research and published widely. He is a member of The American Dental Association, Omicron Kappa Upsilon, Sigma Xi and the International Association for Dental Research.

DENTAL DIGEST

Reprinted from the August, 1972 edition

THE DENTAL ASSOCIATE OFFICERS' FAREWELL

MAJOR R.G. PEEBLES, CD.



From September 1939 to September 1972, and from the Canadian Army Dental Corps through the Canadian Dental Corps and Royal Canadian Dental Corps to the Canadian Forces Dental Services, there was a group of officers who formed an integral part of the Dental Services -- latterly known as Dental Associate Officers.

Non-dental officers were employed in dental units and staff appointments to provide the dental commander with the required Administrative and Quartermaster officer support, without the loss of the services of dental officers who would otherwise be required to fill the positions.

Initially the civilian dental supply houses provided a ready source of potential Quartermasters for the burgeoning Dental Corps while Administrative officers were recruited either from dental faculties or enticed from other Corps. Subsequently, during World War II, senior dental storemen and administrative clerks employed with the Corps were commissioned from the ranks to fill the "A" and "Q" vacancies in the dental units.

Following the Second World War, a policy was adopted that required all tradesmen to qualify as basic dental assistants before being considered for retransfer to other trades in the Corps. The

obvious advantage of this was that when ultimately selected for commissioning, the candidates brought a more comprehensive knowledge of the "workings" of the establishment.

During the 1950's the classification was opened to include Dental Laboratory officers. The senior qualified warrant officers in the laboratory trade fulfilled this need.

In the 1960's selected Dental Therapists were commissioned as DAOs(Hygiene) for employment in larger clinics as members of the dental health team.

DAOs have served with units attached to a multitude of Canadian navy, army, and air force formations in all theatres and when their service in the ranks is included, they had, within their group, personnel who had served aboard HMC ships and in just about every conceivable type of base, unit and station of the Canadian Forces throughout the world.

The DAO system worked well over the years, but the forthcoming integration of the CFDS Supply System with the Canadian Forces Supply System has caused the DAO (Supply) positions to be transferred to the Logistics Branch. Additionally, the 1973 manpower reduction made a significant change in the remaining numbers and rank structure of this group of officers.

Following a series of in-depth studies

on the effects of the greatly reduced establishment of the DAOs, it was concluded that it could not be considered a viable classification. It had become too small with an almost non-existent possibility for promotion.

Investigation of the alternatives available finally produced a solution that offered greatly enhanced opportunities for the serving DAOs. They could transfer to the Logistics, Personnel Support or other classification of their choice, and following further training for "class" qualification, would be eligible for advancement with their peers in the field, where their experience with the CFDS would serve them in good stead. The Administrative positions remaining with the CFDS were changed to Personnel Support and the Laboratory and Hygiene positions reverted to CWO positions of their former dental trades of laboratory technician and dental therapist.

One of the problems of management/leadership is that when an alternative is chosen some will not agree with the choice. In this instance however, I would like to quote an unnamed DAO lieutenant: "It'll sure beat sitting as a captain for 20 years."

In summary, it has been a happy marriage with both sides accruing benefits. Hopefully, from the DAOs' standpoint, we will continue to retain to some extent at least, our ties with our many friends in the CFDS as we go our separate ways.

REPORT OF A CASE

ACUTE LEUKEMIA

Captain P.D. Higgins, DDS.

History. On a Sunday morning, a 29-year old Caucasian woman presented with, in her words, "bleeding, swollen gums."

Oral Examination. She displayed extremely hyperplastic gingival tissue of a pinkish-white colour and very shiny, highly indicative of massive cellular infiltrate. There was a constant oozing haemorrhage from the gingival sulcus area. The palate displayed some petech-

iae. The actual state of oral health was fair and the swelling was extremely disproportionate to the little calculus present. She also displayed considerable external facial swelling which covered the area including the lower face and neck. No nodes were apparent on palpation and salivation appeared normal.

Roentgenographic. Dental tissues were normal. Bone pattern was normal and

there was no apparent blockage of the salivary ducts with sialoliths.

General. The patient appeared quite anaemic and admitted to having a slight fever which had persisted for several days. Her arms and legs displayed extreme ecchymosis; and several areas where obviously minor cuts and scratches appeared to be ulcerating rather than healing. The upper thighs, pelvic area and lower abdomen were one solid mass of deep blue-black. Upon questioning she admitted to being in the middle of "a much heavier period than normal."

Medical History. Since it was apparent her chief problem was not dental in nature but quite likely a blood dyscrasia or associated systemic problem she was further questioned. She had had an operation six weeks previous to presentation and described having undergone tubal ligation and removal of left ovary due to adhesions. She admitted a hypersensitivity to penicillin and a rather prolonged treatment with broad-spectrum antibiotics prior to her operation and for one week afterward. Her "bruising" had started two to four weeks post-operative and had been steadily increasing. She

had arranged an appointment to have the "bruising" treated and was to have seen her family doctor on the Tuesday.

Differential Diagnosis. Acute leukemia or a massive drug-induced pancytopenia.

Tentative Diagnosis. Acute leukemia.

Sequellae. Her family doctor could not be contacted so a medical officer was contacted on the advisability of immediate hospitalization since the oral picture alone was highly suggestive of leukemia. It was decided to allow her to go home and to contact her family doctor on Monday and arrange for immediate consultation. The patient was dismissed and advised that dental treatment would not be rendered until her physician had attended to her "bruising".

Her physician saw her on the Monday afternoon and admitted her to hospital. After preliminary blood tests she was transferred to Ottawa where she died on Wednesday night of acute leukemia.

Conclusion. Nothing could have been done for this patient. The suddenness of onset and termination was demonstrated when records showed her white blood count as 4,000 at the time of her operation and 250,000 at the time of death.

A CASE REPORT

MUCOSAL BURN

Captain G. Gunther, CD, DDS.

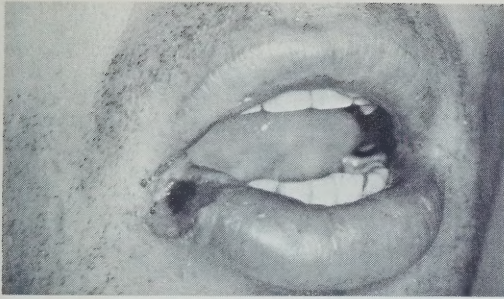
A 28-year old white male presented for removal of a horizontally impacted lower right molar. The tooth was asymptomatic but had communication with the oral cavity. It was determined that this would be a potential source of infection.

The patient was anaesthetized with two carpules of 2% lidocaine hydrochloride with 1/100,000 epinephrine. The dental officer gloved and a new straight handpiece was placed on the belt-driven arm. A mucoperiosteal flap was raised. Bone was removed distally and buccally using the straight handpiece and a 703 bur with saline coolant at the cutting site. The tooth was sectioned and removed un-

eventfully. Closure was effected within 40 minutes. During suturing a patch of white, mobile area of mucous membrane was noticed in the buccal vestibule extending from the vermilion border toward the extraction site. Surgical rubber gloves were removed and the straight handpiece tested for heating.

The patient was advised of the burn to his cheek, placed on a bland diet avoiding acid foods and told to apply vaseline jelly to the outer lip to prevent cracking. APC with Codiene 1/2 grain was prescribed for pain.

Appearance after 24 hours was about



the same as day of operation with crust starting to form at the vermillion border. Pain was minimal.

In five days the verrucous mass on the vermillion border grew to 1.5cm. in area with considerable thickness, which remained for another five days. The patient had "frozen face" appearance and limitation of movement was the chief complaint. The lesion healed completely without scarring in 21 days.

Conclusion. Due to use of heavy surgical gloves, the overheating of an unfamiliar handpiece, resulting in burn to mucous membrane, was not detected until completion of procedure.

Two talk of a trip

A CRUISE TO AUSTRALASIA

*Captain P.F. Stirling, DDS
and Sergeant J.C. Hughes.*

Captain Stirling: A phone call to the Dental Clinic at HMC Dockyard, Esquimalt on a July morning informed Sgt Hughes and myself that we would be the dental team on a four months cruise with the Second Canadian Escort Squadron. We would be situated on HMCS Provider, accompanying HMCS Gatineau and HMCS Qu'Appelle.

To say that the dental personnel involved were apprehensive would be an understatement. To say that the families involved were shocked would be a gross understatement. To say that we were unhappy about adopting a new mode of life would not be at all true. Our apprehension of sea duty was second only to the apprehension of the ships' company at the idea of having two "pongoloid toothwrights" along for four months.

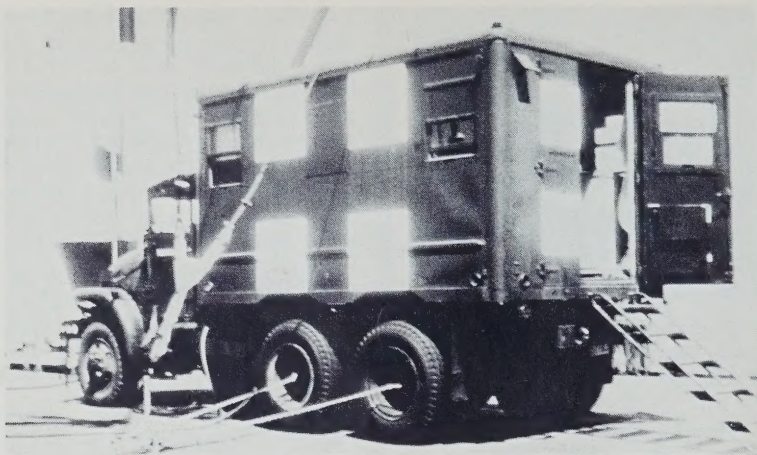
Sergeant Hughes: One problem with operating a dental clinic on the ships is that dental clinics were not built into them. We had to wait for a dental van to be shipped from CFB Borden where it was being used in the summer training program. It arrived six days before sailing, but Provider, being a supply ship, was not able to load the dental

van until the day before sailing. Items such as two totem poles, dental equipment for the Fiji government, a dog sled, and many, many cases of beer preceded the loading and securing of the dental van.

Capt S: On Saturday, 26 August, a clear and crisp day, we started the first leg of our journey: to Port Moody, up Burrard Inlet, to take on about 60,000 barrels of fuel for the long cruise ahead.

Sgt H: We left Port Moody on 28 August and headed down the Strait of Georgia into Juan de Fuca Strait, then into the Pacific Ocean on our way to Hawaii and Pearl Harbour.

Tuesday we spent setting up the dental van and familiarizing ourselves in boat drills and emergency stations. The next day, Qu'Appelle came alongside for fuel, and your daring dental team turned sailors, decided to go for a ride on a jackstay so that we might do a dental survey of Qu'Appelle's crew. Being the most frightened (?), I went first. I would never have gone across on that rope without the proddings and threats of my dental officer. We completed over 200 dental examinations and had time to see what life was like on a destroyer. The



... 25,000 miles and not even a change of oil ...

following afternoon Provider sent one of her helicopters over to pick us up via a 1/4-inch cable with a life belt attached while it hovered 50 feet overhead. After a jackstay transfer, you get brave enough to try anything.

Capt S: Our first days at sea helped us acquire sea legs (and sea stomachs). After five days at sea, we arrived in Pearl Harbour. Pearl is not a good port really, except to shop at the local PX. It's a long taxi ride (\$7.00) or spotty bus service to Waikiki, and once there, everything is very expensive. Trips have to be made to some of the other islands to escape the rank commercialism of Waikiki.

While at Pearl we took on three USN helicopters and crews, to participate in RIMPAC 72, a ten day exercise in which the Pacific Rim countries (Canada, USA, Australia, and New Zealand), took part. This exercise was interesting, except that we were apparently sunk several times, which we found disconcerting.

Sgt H: After the Rimpac exercise, and a few more days in Pearl, we sailed south on 21 September bound for Suva in the Fiji Islands. Before reaching that destination, we tadpoles had to keep an appointment with King Neptune as we crossed the Equator. This was a very memorable occasion and a lot of fun. On 28 September we crossed the International Date Line, and thereby skipped the 29th of September, and the following morning we arrived at Suva. The Fiji Islands are not too well known in our part of the

world. They consist of two main islands and hundreds of smaller ones. The island we visited was Euti Leau, with a coastline of almost five hundred miles. Being tropical, these islands are always green although in parts of the islands there have been occasional droughts. The two main racial groups are Fijians and Indians.

Capt S: In Suva, I was tasked with presenting some dental equipment to the Fiji Department of Health from the B.C. Dental Association. There is a large hospital in Suva, with a busy dental clinic which also trains dentists. The type of mobile dental equipment we were using on the ship would be ideal so that the Fijians could take it to the many outer islands and jungle areas. They have an active preventive program but are hampered by a shortage of personnel.

The People of Suva are very friendly. Being a duty-free port, most goods such as watches and cameras can be purchased for half the price we pay for such items in Canada.

Sgt H: We left Fiji on 2 October and headed southwest for Australia. After a calm and relatively uneventful cruise we arrived at Sydney on 9 October and spent seven days in port, went out for a nine-day exercise off the east coast of Australia and then returned to Sydney for another six days.

Capt S: Sydney is a large city. The construction in progress is staggering. The skyline was dotted with cranes erect-

ting high-rises of every shape and size. The people there feel they have a lot in common with Canadians and were very eager to talk to us, and to almost literally kill us with hospitality. Our hosts in Sydney were the members of HMAS Parramatta and HMAS Sydney and they did their best to see that our every moment (including sleeping time) was spent touring, socializing, playing sports or drinking Australian beer.

Sgt H: In Sydney, don't miss a visit to Taronga Park Zoo, where all the kinds of animals native to Australia can be viewed. Some of the species looked odd to us, such as the duck-billed platypus. A short distance west of Sydney are the Blue Mountains, part of the range separating the Australian desert in the west

from the grasslands on the eastern slopes. These mountains get their name from the blue haze which is always present from the vapors rising from the millions of eucalyptus trees.

We left Sydney for the southeast corner of Australia and the City of Melbourne. This is Australia's second largest city with a population of about two million. It differs quite a bit from Sydney. The people there seem to lead a much quieter life. Melbourne is the financial and business centre of the country. I made friends with a young couple here, and they took me on a tour of the city and the surrounding country.

Capt S: New Zealand was our next stop. Our first stay was in Auckland. Both here and in Wellington, our last stop,

Presenting dental equipment to the Fiji Department of Health on behalf of the B.C. Dental Association, September 1972. (Left to right) Cdr Birch-Jones, Dr Deo Navayan, Dr Stirling, Dr Cassidy (acting Medical Superintendent), Dr Salato.

(Fiji official photo)



the local people adopted us, invited us into their homes and were anxious that we see their country, meet their people, and be well impressed by both. We were. Many Canadians got out into the countryside to hunt and fish.

Sgt H: Auckland is New Zealand's largest city with a population of roughly 600,000. The coast of New Zealand is much like the coasts of Great Britain: everything is lush and green. The North Island is volcanic in origin, and signs of this could be seen almost everywhere we travelled. Rotorua, a short journey from Auckland, is an active geothermal area with geysers, hot springs and a model Mauri village. The Mauri is the native New Zealander who has occupied these islands since about 1300 A.D.

While in New Zealand, Exercise LONGEN took place with the armed forces of the USA, Australia, New Zealand and Canada participating. Apparently this was the largest naval force in New Zealand waters since the Second World War with eleven surface ships and two submarines taking part.

After the exercise, we headed for Wellington, the last of our foreign ports. Situated among the hills of the coastline on the southern end of North Island Wellington is a very pretty city. It has the reputation for being the windiest city in New Zealand, and it lived up to its reputation during our visit there. I went on a tour into the sheep district where a top shearer demonstrated shearing a sheep in 85 seconds; I also toured a butter factory where two tons of butter are made at a time.

Capt S: On a sunny 3rd of December we slipped out of Wellington harbour to begin the sixteen day, 6,500 mile cruise home.

Boredom is the great enemy at sea, and the old salts with whom we were sailing were masters at fighting it. There were deck hockey games, chess tournaments,

skit nights, casino nights, No-day ban-yans (No-day is the extra day we gained recrossing the International Date Line), Christmas carol singing (with appropriate vocal lubricants) and mess dinners. There was also a beard-growing contest in which the dental staff entered with very disastrous results.

The final event of the long trip was the special remodelling job done the last night out to the old green dental van by a mysterious group of people.

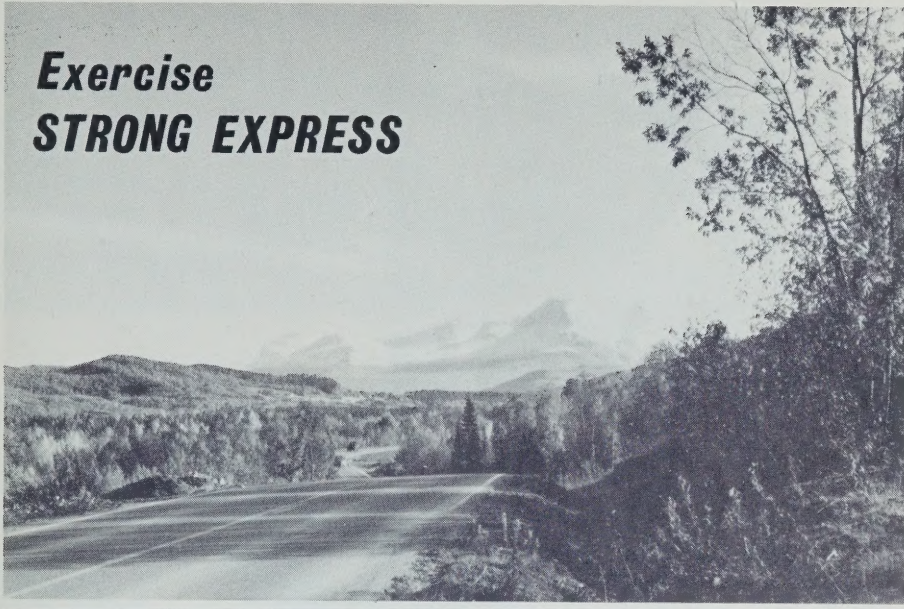
The van appeared on the morning of arrival splendid with a double racing stripe on the hood, red and white wheels, yellow frills around the edges and various graffiti which will not be quoted here. It was now the only dental van in existence with silver cylinder heads and a silver universal joint. Most of this "customizing" was corrected prior to off-loading in Esquimalt but the racing stripe stayed. After all, 25,000 miles with not so much as an oil change deserves some sort of mark of distinction!

With all of our adventures ashore and at sea, we were able to do a sizeable amount of dentistry on the cruise. The ships' crews required a lot of dental treatment and were very glad of the opportunity to have it done. We were kept busy in port and at sea by jackstay transfers and never a complaint from any one of the heat in the van or the cramped conditions. The equipment we had performed admirably. The experience of working with a fine group of people made the cruise a success for us. Their cooperation and hospitality to a couple of strangers to their way of life will be a pleasant memory for a long time.

Sgt H: The trip was a memorable event which I am sure we will remember for the rest of our lives. I hope that in the future more of our people will be able to retrace our tracks and enjoy a similar cruise as much as we did.



Exercise STRONG EXPRESS



Captain P.D. Higgins, DDS.

Approximately 1,000 men, comprising the Canadian Contingent for Exercise STRONG EXPRESS, were dentally examined prior to departure. The examination showed 63% to be fit and 35% to require minimal treatment. Only two members required remedial treatment to bring them to an operationally acceptable level of fitness.

On 17 September 1972 in Bardufoss basin, 200 miles north of the Arctic Circle in Norway, the largest exercise ever held by ACE Mobile Force began. The Canadian Contingent was only a fraction of the 64,000 troops mobilized for the venture.

Capt Higgins and Sgt McRae were the dental team to travel with the Canadian Contingent in the field. Air portability and mobility were the key features of the exercise so the dental equipment taken was the 38 pound Belldent unit and one 15 pound Dental Field Kit.

We left Petawawa by Hercules aircraft on 12 September and arrived in Bardufoss 13 September to be greeted by sunny weather and temperatures of 35°F. There was no snow on the ground at this latitude although every day it could be seen creeping further down the slopes of the mountains ringing the basin. The temperature didn't vary much from just above freezing point so it was rain and not snow that fell almost every day. Because

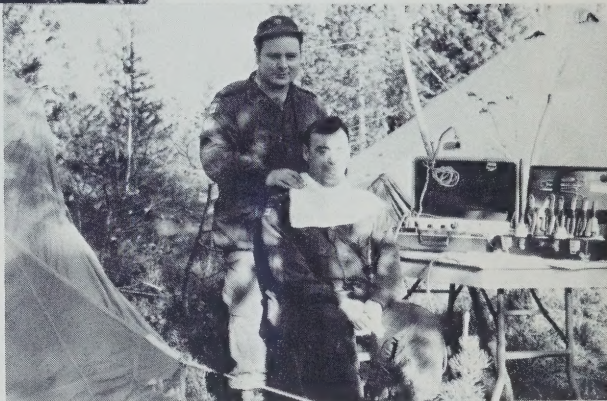
of this and a shallow permafrost, the ground quickly became a quagmire under the wheels of vehicles. Among the first to arrive, we found a dry spot to pitch our 5-man arctic tent and being attached to NATO Support Element in a static capacity, this area became our living and working quarters for the duration of the exercise.

With exception of the Italian field hospital, the Canadian Contingent was the only one to have a dental team along. The Italian dental office was fully equipped with an X-ray unit and a very sophisticated portable dental chair. Since neither the Italian nor Canadian Dental staff was overworked, both were able to handle a few emergencies from the British Contingent.

Our equipment proved capable of handling the work load. The Belldent is very flexible, being able to use 110 or 220 AC, 12 volt DC vehicle battery or off its own internal rechargeable cells. The handpiece, a variable speed, foot controlled, electrically operated device, was a pleasure to work with under the circumstances. The kit includes a pulp tester and a dual purpose foot controlled electro-surgery unit. The Belldent is also equipped with an amalgamator, a high in-



Capt Higgins with Belldent unit and auxiliary L Kit



Sgt McRae with patient

tensity intra-oral light and an extra-oral, variable intensity lamp on a goose neck. Thus when this is accompanied by an L-kit containing surgery instruments, drugs, denture repair kit, etc., efficiency and capability are at a maximum and portability and mobility are not sacrificed.

Shortly after arrival, Canada hosted a wine and cheese party which was attended by 1,000 troops from Britain, Luxembourg, Italy, Germany, Norway, USA, and Canada. Although it was held outside in a constant drizzle, spirits were high and a sense of comradeship pervaded, making the affair a success.

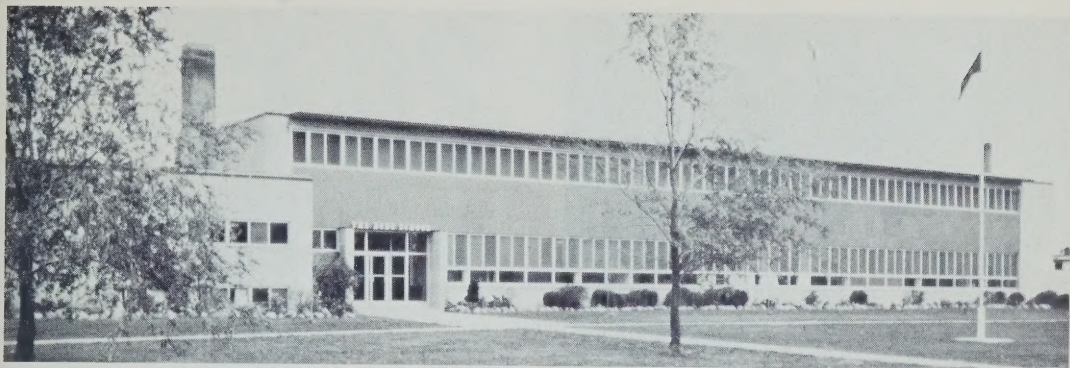
Several visits to the small towns in the immediate area were made and troops purchased the abundance of souvenir items including reindeer skins sold from stands run by the travelling Laplanders.

The exercise for the most part gave us an excellent opportunity to see an integrated multi-national support group in action, and to appreciate the problems

involved in moving 1,000 men from one environment to another, completely ready to live, sleep, eat and fight.

Generally we enjoyed ourselves despite the rain and the stand-to's at 0300 when the sun came up. We appreciated the friendly contact and exchange with the soldiers of many nationalities and the civilians of Norway. And finally, we feel we've learned a great deal which will allow us to embark on the next exercise with our eyes wide open.

Editor's note. Capt Higgin's report also stated that dental emergencies occurring in members of the Canadian Contingent were among those considered dentally fit on departure, indicating the need for continued dental care in that a dentally fit person is not immune to emergencies. The report also noted the necessity for a portable X-ray unit for adequate diagnosis even in field conditions.



Dedication

WANSBROUGH BUILDING

A ceremony conducted at the Canadian Forces Dental Services School, Canadian Forces Base Borden, on Friday, 20 October 1972, marked the dedication of the school as "The Wansbrough Building."

The Dental Services School has been so named as a memorial to the late Brigadier Elgin McKinnon Wansbrough in recognition of his contributions to dentistry in the Canadian Armed Forces,

Mr. Schwartzkogler, an Ottawa area sculptor, was commissioned by the Director General of Dental Services to produce a bronze plaque to be hung in the main vestibule of the Canadian Forces Dental Services School in memory of Brigadier Wansbrough. The Royal Canadian Dental Corps Association, in remembrance of the Colonel Commandant, provided the necessary funds.

The plaque was unveiled at the ceremony attended by Mrs. Essie Wansbrough, widow of the late Brigadier, and by relatives, friends, colleagues, members of the Royal Canadian Dental Corps Association, Commandant and members of the Canadian Forces Dental Services School.

Following a scripture reading by the chaplain, Major T. Fenske, Major G.G. Hunt, president of the Royal Canadian Dental Corps Association asked the Canadian Forces Dental Services to accept the plaque as a memorial and to arrange for its care. Colonel J.W. Turner, the Director of Dental Treatment Services, on behalf of the Director General of Dental

Services, accepted the memorial "as a sacred trust and shall guard it reverently in honour of the long devoted service of Brigadier Wansbrough to his





Brigadier Wansbrough

country in whose memory the memorial is presented." The ceremony was concluded with a prayer and benediction.

Born in Grand Valley, Ontario, Elgin M. Wansbrough served in the Canadian Machine Gun Corps in the First World War, attended University of Toronto and graduated with a dental degree in 1923. From 1927 to 1939, he served as a militia officer while practicing dentistry in Shelburne, Ontario, and on 27 October 1939 transferred to the Canadian Dental Corps. Brigadier Wansbrough served in Canada and Europe during World War II, returning to Canada in August 1945. On 28 September 1946 he was appointed Director General of Dental Services. In August 1951 he was promoted to the rank of Brigadier and in 1953 was appointed Queen's Honorary Dental Surgeon.

After his retirement in 1958, Brigadier Wansbrough continued to actively support the Corps. He was honorary life member of the RCDC Association and Colonel Commandant of the Royal Canadian Dental Corps from January 1965 to his death on 20 December 1970.



Gathered beneath the bronze plaque of the late Elgin McKinnon Wansbrough immediately after the unveiling and dedication ceremony of 20 October 1972 are (l to r): Maj T Fenske; Dr WG Berry, a close friend of Brigadier Wansbrough; Col LG Craigie, Commandant of the CFDS School; Mrs Essie Wansbrough, widow of the late Brigadier; Col JW Turner, Director of Treatment Services; and Maj CG Hunt, President of the RCDC Association.

CFDS NEWS

New X-Ray Machine

A new X-ray machine has recently been installed at 14 Dental Unit Detachment, CFB Cold Lake. This unit incorporates a head positioner termed a cephalostat. The equipment is specially designed for orthodontic radiography.



Major Marion positioning patient in the cephalostat.

A perfectly counterbalanced structure allows the effortless vertical positioning of the X-ray tube and head positioner to fit the patient. A standard target-object distance of five feet is used to obtain the various cephalograms.

The lateral head radiograph is an indispensable diagnostic tool for the orthodontist. It allows him the possibility of relating the dento-alveolar structures to the jaw bones, and the latter to the relatively stable cranial structures. The purpose of the cephalostat is to afford accurate radiographic reproducibility. Oriented cephalograms can thus be superimposed on stable structures in order to assess the effects of treatment and/or growth in a given pattern.

1 DENTAL UNIT

by Warrant Officer J.M. Patterson

Gloucester Clinic Closed

The clinic at CFS Gloucester closed in October. The equipment has now been installed in a new clinic at CFS Carp, staffed on a one-day-per-week basis by Maj Wood and Sgt Hollins.

Arrivals and Departures

Sgt Ethel Snippa was posted to unit headquarters in early January, replacing Sgt Giles Cote, retiring in February ... Capt Ames and Sgt Hannay are back from a tour in Cyprus ... Sgt Hannay won't be with us long - he's off to Europe this summer on posting ... WO Piche was honoured at a party held at the NDHQ clinic on retiring in November after 29 years. Don was presented with a fishing reel and a picnic cooler.

Trips

Major Cyrenne and Sgt Hollins were on a two-week temporary duty trip to London England recently. From all accounts they must have bought out half the shops in Oxford Street as they returned with all sorts of goodies ... Capt Spencer went to the Bahamas for a week's holiday and returned with a tan that was the envy of all.

Painful Extraction

A purse robbery occurred in November in the NDHQ clinic. The unlucky victims were Pte Dawn Duncan, Mrs Greene, Mrs Mantle and Mrs McNamee.

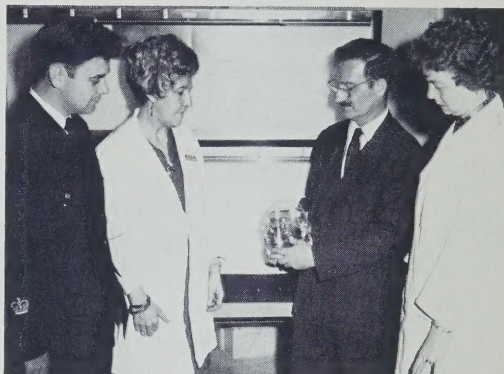
Christmas Party

The unit Christmas party was held at CFB Ottawa (South) Golf Club on 8 December. Capt Cherun and WO King, with financial assistance from the dental officers in the Ottawa area, arranged a very successful evening. BGen Evans drew the first door prize won by Capt Dessureault, a very popular win. Capt Spencer and Cpl Diane Manuge also won door prizes. Diane took this opportunity to announce her forthcoming wedding to Cpl Tony Nolet on 12 January.

Honors and Awards

WO (W) JM Patterson walked away with the Top Student Plaque on the WOs Qualifying Course ending in November 1972 at the CFWOs School, Esquimalt.

Clinical Conference



An all-day clinical conference was held at NDMC on 20 November. Photo shows WO King, Mrs Aubin, Dr F Musaph and Mrs Kelso with the panthomograph in the background. Dr Musaph is demonstrating the phantom head used in calibrating the machine.

Sports

Avid unit curlers are headed for an all-day curling bonspiel at CFB Petawawa on 19 January. Sgt Rene Tremblay has really loaded his team - this will be a rink to beat not only in Petawawa but in Borden, so don't say you haven't been warned. Cpts Ames, Dessureault and WO Patterson have taken the plunge in more ways than one and joined the NDHQ Scuba Club. One of our instructors is Sgt Ron Lindsay. We all hold him responsible for our bloodshot eyes and tired, aching bodies every Wednesday morning.

11 DENTAL UNIT

by Sergeant R.S. Walker

Expansion

This unit has been allocated two floors of a building in Naden adjacent to the present clinic. It is planned to use

this space to house HQ 11 Dental Unit, a preventive dentistry centre, central dental laboratory and clinic offices.

Visits

BGen GC Evans visited the unit 31 Oct-1 Nov ... Maj JL McNeill, Cpts DE Watson, RJ Fennell and B Kendall attended a clinic at Madigan General Hospital, Tacoma, Washington on 20 October. Professor Hugo Obwegeser from Zurich lectured on "Maxillo Facial Surgery Today."

Social Scene

The unit Christmas party this year was held in the Junior Ranks Club, Workpoint Barracks on 7 December. Former members of CFDS attending were: Gerry Shragge, Harry Latham, Perc Gourlay, Gordie McKay, and Dr Norm Butcher. Miss Vin Phillips from Currie Barracks Clinic, Calgary, also attended. There were cries of "fix" when the two spot dances were won by LCol Protheroe and LCol Harrington.

Provider Pongos

Our unit sailors, Capt Stirling and Sgt Hughes, have returned from a four month voyage aboard HMCS Provider to Australia.

Fort Benning Dental Residency

Maj ED Cragg, now in practice at Dental Clinic No 3, in the Kelley Hill area of Fort Benning, is the first Canadian dental officer to take dental residency at Fort Benning.

Halifax and Shearwater ... MWO Bennett and MWO Hutchinson were in the unit area for inventory checks at Shearwater, Cornwallis and Greenwood in late October ... MWO Bennett and Sgt Longford were on inventory checks to Gagetown, Moncton, Chatham and Summerside in late November ... LCol DH Protheroe paid a liaison visit during 12-17 December ... Maj NH Andrews and Sgt PD Whynott were in Bermuda 4-25 November to render dental treatment at the station and to soak up a bit of the good old sun.

Gagetown Prosthetic Laboratory



LCol TD Cobb cuts the ribbon (?) during the official opening of the prosthetic laboratory at Gagetown. Assisting is WO Chris Christiansen while Cpls Bob Clarke and Deon Allen look on.

Mrs Vice President

Mrs Sandy Reath, DA at CFB Halifax, has been appointed Vice President of the N.S. Dental Nurses and Assistants Association.

Social Scene

12 Dental Unit held a Christmas dinner and dance on 8 December in the Spanish Room of CFB Shearwater's Sergeants Mess. It was one of the best events we've had in a long time. The outstanding efforts of Sgt Robbie Roberts and the unit entertainment committee made it a most enjoyable and successful event.

Recently Major and Mrs Jolly received an official invitation from the naval side of the house to attend the commissioning of HMCS Huron at Sorel, Quebec. Due to other commitments, Maj Jolly had to decline the invitation but he wondered what it would be like as an XO of a ship after being in several posts in the clinic and unit area of CFB Halifax.

12 DENTAL UNIT

Lieutenant D.E. Fraser

Visits

Maj KP Buchholz attended the Winnipeg Dental Association meeting, 16 December ... Maj NH Andrews completed a series of four one-hour lectures to the senior students of the Victoria General Hospital School of Nursing in December ... Capt JD Rowat attended the Fall Clinic in Montreal ... LCol MN Deyette visited the unit in early November to interview dental officers in Greenwood, Cornwallis,

Retirements

Sgt Ron D'Eon was sent on his way in the traditional manner by the Shearwater Dental Clinic on 31 December. Ron is taking up employment on an oil rig off the coast of Nova Scotia in the vicinity of Sable Island.

After a tour of service which encompassed almost 30 years, Col SG Bagnall, Command Dental Officer and CO of 12 Dental Unit, retired in November and is now



Col Bagnall receiving a Maritime Command plaque from Commodore RW Cocks, Chief of Staff Logistics, Maritime Command.

the Executive Secretary of the Nova Scotia Dental Association.

To mark his retirement, officers of Maritime Command Headquarters gathered for a luncheon on 26 October. Col Bagnall was presented with a Maritime Command plaque. On 2 November some 80 members and wives of 12 Dental Unit and visitors gathered in the Men's Mess, Windsor Park for a dinner and dance to say farewell to Col and Mrs Bagnall.



Col Bagnall being "mugged out" of the Service. MWO Kirby presented the "loaded" mug on behalf of all Canadian Forces Dental Services members.

DENTAL SERVICES SCHOOL

by Sergeant R.K. Delmage

Visits

LCol LA Richardson, from NDHQ/DGDS, in October, to discuss dental assistant training standards ... Major C Brown, from TCHQ, in December, on liaison ... Forty-five English language teachers and Secretary of State translators, on a familiarization tour of the School, 30

November ... Sgt Gary Albertson (accompanying LCol Richardson) on an accreditation study of the dental assistant programs of several colleges on behalf of the Canadian Dental Association. Ports of call were: Toronto, London, Welland, Winnipeg, Edmonton, Calgary, Hamilton, Windsor.

Christmas Party

The CFDS Christmas party this year was held 9 December. The evening consisted of a cocktail hour, sit-down dinner and dancing to a fine orchestra. By the end of the evening, the crowd was in the festive spirit and ready to face the

season at hand. The committee responsible for such a fine evening were: WO Jerry MacDonald, MWO Bill Parker, Sgt Daryl Mason and Cpl John Walker.

Sports

Several members of the School are at present tackling the Bruce Trail, a walking path which extends for some 465 miles. To date, two walks of 25 and 32 miles have been completed. As each leg is done, it is recorded in personal log books and crests are awarded by the Bruce Trail Association. Cold weather has driven the walking buffs indoors but we are sure that warmer weather will see them on the trail once again.

13 DENTAL UNIT

by Captain L.R.J. Hatcher



St Nick is a RED

On 15 December, in blinding blizzard-like conditions, the duty air traffic controller was greeted by a strange HO HO HO and a request for landing instructions at the Preventive Dental Annex. Permission was granted and a safe landing accomplished (just short of violating a stop sign). St Nick stepped lively from his sled.

Although his main reason for dropping in was his annual maintenance check, he did leave behind some colourful gifts.

He was greeted on arrival by MWO Kidd who was in charge of the brush-in and master of ceremonies. It is difficult to recall if MWO Kidd told St Nick he was again a RED but in any case all who

attended unanimously agreed it was the jolliest time ever.

Parachuting

MCpl GE Sykes is now the Director of the Sports Parachuting Council of Ontario.

Au Revoir

Members of HQ 13 Dental Unit and the staff of the base dental clinic at CFB Trenton gathered on 3 November to bid a fond farewell to WO and Mrs SH (Bud) Lunnin. Bud retired on 28 November on reaching CRA. He had 23 years service with the Dental Services both in war and peace. The Lunnins plan to remain in the Trenton area as Bud is accepting an administrative position at the Warkworth Penitentiary.



WO and Mrs Lunnin with Col WR Thompson. WO Lunnin is holding a replica of the PMQ at 9a Regina Crescent, Middleton Park, where he and his family have resided for the past 16 years.



Mrs WR Thompson presenting Mrs Lunnin with a bouquet on behalf of the dental personnel at CFB Trenton.

Long in the Tooth



LCol WW Anglin being presented with his 1st Clasp to the CD by Col WR Thompson. This clasp is not representative of LCol Anglin's years of service as he is only two years short of his second clasp. LCol Anglin has been the Base Dental Officer at Trenton since July 68.



Sgt WK Jenereaux receiving his CD from LCol Anglin. Sgt Jenereaux was posted to the Trenton clinic from Moosonee in Aug 72.



Sgt NL Highfield presented with the CD by LCol Anglin. Sgt Highfield has been the senior dental assistant at Trenton since Aug 70.

Conferences and Seminars

Twenty-one officers attended a unit dental conference 30 November - 1 December. During the two days, the group was addressed by MGen H McLachlan, Commander Air Transport Command, BGen GC Evans, DGDS, LCol MN Deyette, PCO/Dent, Maj HS Wood, DENTTS-3 and Maj MB Fisk, CO 1 DED.

The conference allowed for the free exchange of information among all officers attending, the above-noted speakers and the CO, Col WR Thompson. The conference concluded with a suggestion for its continuance in forthcoming years with the addition of perhaps a half day devoted to clinical presentations.

Recently the Petawawa Dental Clinic hosted a two day dental seminar for the Renfrew County Dental Society. Members of the Society and guest lecturers were welcomed by LCol GE Windsor. The seminar was conducted by Dr JA Hargreaves and Dr RO Fisk, dental specialists and professors at the University of Toronto.

The seminar provided an opportunity for dental practitioners to exchange views, discuss professional problems and learn of the recent advances in dentistry at dental research and teaching institutions.

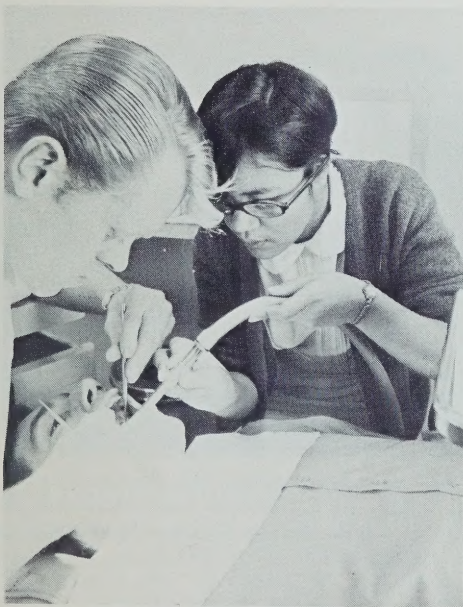
14 DENTAL UNIT

by Mrs M Dykes

The Wheat ...

Unit members at Winnipeg, Edmonton and Cold Lake had the opportunity to meet and chat with BGen GC Evans during his recent liaison and inspection visit ... Maj LA Reynolds, CFDSS, visited CFB Winnipeg dental clinic while in Winnipeg attending the Summer Officer Training debriefing conference at TCHQ ... MWO Jack Fraser was a promotion board member for Cpl/MCpl to Sgt medical and dental

tradesmen, at NDHQ ... Cpls Gary Bowser and Roy Tallack attended a weekend laboratory course on Esthetics, Phonetics and Function Denture Technique sponsored by Mr Cec Waters of Dentsply at McKay Dental Laboratories in Winnipeg ... Maj IW Susser lectured on Preventive Dentistry in the Cdn Forces to the fourth year dental students at the University of Manitoba ... On 28 October the dental officers of CFB Cold Lake dental detachment attended a dinner meeting of the Northeastern Alberta Dental Society. Maj HJ Marion presented an illustrated lecture on "Preventive and Interceptive Orthodontics for the General Practitioner."



Miss Diane Martin is undergoing six months on-job training as a dental assistant at CFB Cold Lake. Her training has been set up under the auspices of the Department of Indian Affairs. Here she is assisting Capt CG Milne at the chair.

and the Chaff ...

Sgt OW Mandrusiak was recently appointed the president of the Recreation Curling League at CFB Shilo ... Cpl MF Audet was appointed the Barrack Warden at the CFB Cold Lake servicewomen's quarters

... Mrs Kay Coombe and Mrs Shirley Bolger travelled to San Francisco to attend the American Dental Assistant Association Convention during October. They discovered the Association had neglected to make hotel reservations for them, so they attended a cocktail party, visited the famous Fisherman's Wharf and returned to Winnipeg the following day. It must be nice to be affluent HS PHS 3s and be able to afford such an overnight trip! ... While on TD recently to Yellowknife, Cpl John Wesley purchased a ticket on the Grey Cup Game from the flight steward and won the \$500 pool sponsored by 435 Squadron ... Sgt OW Mandrusiak was presented with his CD at CFB Shilo on 7 October.

Visits



BGen GC Evans, on a recent visit, discusses some laboratory work with WO G Shechosky, in charge of the dental laboratory at Cold Lake. In attendance are Cpl W Mitrikas, laboratory technician and LCol JJN Wright.

Sports

The fall hunting season on the Prairies always presents a few stories of successful trips into the wilds of the West. The first story was of Capt Kjeld Hansen's bag of a 1,200 lb moose, two deer, 6 geese and some ducks near Hodgson, Manitoba, about 150 miles north of Winnipeg.

Cpl Don McKay of the Dental supply section in Edmonton, and his hunting partner (male), shot two moose during the first days of their trip. This event took place on the Virginia Hills Road, between Fox Creek and Whitecourt, Alber-

ta, despite the great number of hunters in the area and the lack of snow.

During the first week of October, a party of mighty hunters from CFB Cold Lake detachment went on their annual safari to the Nordegg Alberta region. The formidable trio of Cpts RW Rix, CG Milne and GA Boulanger was this year augmented by a great woodsman and cook of somewhat ill repute: Sgt LH Pion. Their convoy consisted of one bus converted into a house trailer, two jeeps, and one snowmobile. This magnificent expedition managed to emerge from the wilderness with a prize bull moose.

Capt G Boulanger has further broadened his already lengthy list of activities and achievements by becoming a member of the CFB Cold Lake Boxing Club. His first appearance occurred on the night of 2nd December when he scored a TKO in the 2nd round against a formidable opponent. Capt Boulanger should no longer have patients who are reluctant to accept his treatment plan!

Promotion



Capt Brian Vandervaat receiving his new rank insignia from Col LR Pierce.

Retirement

A farewell dinner was held at the Griesbach Barracks WOs and Sgts Mess, CFB Edmonton, on 19 October to bid farewell to Major and Mrs VO Bergland. Maj Vern Bergland is retiring after a service career that extends back to 1938, and has decided to remain in Edmonton with the stores section of the Faculty of Dentistry at the University of Alber-



Major and Mrs Bergland displaying the CFDS Crest presented to them by Col LR Pierce on behalf of the Dental Services.

Long Service



MWO JA Fraser being presented with a 1st Clasp to the CD by Col LR Pierce and LCol JJN Wright at CFB Cold Lake on 20 November.

The Airborne Clinic

by Corporal J.J. Vasek

14 Dental Unit has some peculiar adventurers who think they are birds. They climb into an aircraft with one purpose in mind - to climb out again at a few thousand feet up. This flock is composed of a flying ex-dental officer, Capt (retired) Serge Dion; a flying lab man, Cpl Richard Abfalter; a flying dental assistant, Cpl Joe Vasek; and some Airborne element people on ob-job train-



Cpl Vasek ... the only way to go ...

ing with the clinic: MCpl Rick Portuando, Cpl Lou Deveaux, and Cpl Ken Stewart.

Cpl Abfalter has made only one jump, in which he hit the ground on the wrong appendage, but he hasn't given up. Cpl Vasek has over two hundred jumps to his credit. He placed first in the Intermediate Individual Accuracy Even during the Alberta-Northwest Championships in May. At present semi-retired with a broken foot, he's waiting for the day when he can again flap his wings.

A Picked Up Pick-Up

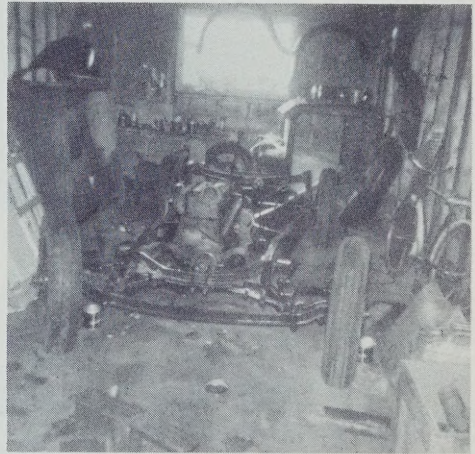
by Sergeant L.H. Dion

At CFB Moose Jaw, where the winters are somewhat unbearable, I had been searching for some time for a hobby at which to spend the long winter nights. In February 1967 I found it. Pitifully broken, rusted and stripped of whatever usefulness it once possessed, lay my prize: a 1933 half-ton Ford pick-up. It stared vacantly over the frozen prairie, too long ignored to comprehend the excited gibberish of its new owner.

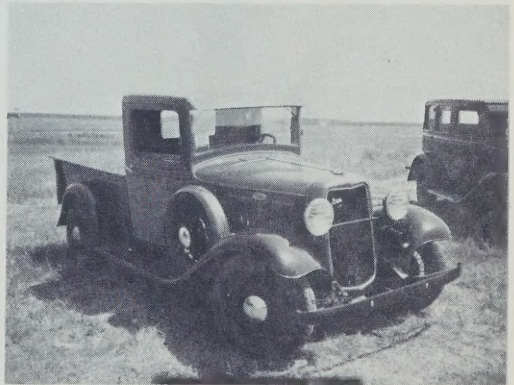
Although I had had previous experience in auto mechanics, I was to learn that the restoration of an antique is a whole new experience. The truck was completely bare of power train, fenders, doors, wheels, front axle, and steering gear. The only serviceable parts were the frame and box. At this point the similarity between the restoration and a jigsaw puzzle became strikingly evident, but with the pieces spread out over the

country, not just on a table. Not only did I have to identify over 5,000 parts, but collect and assemble them. Just consider: 32 individual parts are needed to raise and lower a door's window. I did not have a window, let alone a door.

In the course of restoring the pick-up, I travelled extensively throughout Saskatchewan. Sunday drives with my family invariably ended in the exploration of a car dump, a scrap metal pile, or a search through some bemused farmer's "bone yard". Temporary duty trips to northern Saskatchewan radar stations were also parts-finding expeditions. I am sure Capt Gish recalls the dump at Theodore!



Stripped down



Ready for the Open Road

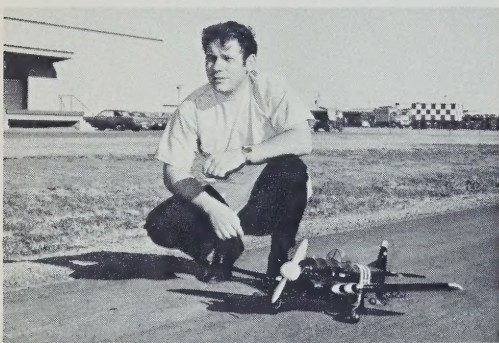
Every part collected has its related story, but to make a l-o-n-g story short, in two years I had accumulated enough parts to assemble the truck.

With a coat of red paint, a pert little engine, and a foolishly-grinning driver, it made a fine sight on the road. The sudden realization that mechanical brakes in no way compare with hydraulic brakes, and the steering column lock (yes - 1933) slipping into place at 30 mph brought a few moments of special terror.

In July 1970 I was posted to Cold Lake. I drove the truck there from Moose Jaw, a distance of some 450 miles, without encountering any mechanical troubles.

With a thousand hours on the power train since arrival at Cold Lake, I again stripped the truck to the "bare bones". Working on this old Ford pick-up over the past years has given me many hours of pleasure. It is completely removed from my day-to-day tasks and serves as an outlet to relieve daily tensions. Pounding a stubborn kingpin does a lot more to relax a person than pounding a stubborn patient or the Base Dental Officer.

Model Aircraft



Cpl LC Street, CFB Moose Jaw clinic, poses with his most recent masterpiece, a model P51D Mustang with 36-inch wing span, weighing 3.5 pounds and powered by a 0.29 cubic inch Enya engine. It is capable of flying on two 60-foot control cables with semi-stunt manoeuvreability. All fabrication was done by hand. Bombs, rockets and .50 calibre machine guns add to its realistic appearance.

Cpl Street's models include a Sabre Jet Stunt, Cosmic Wind Good Year Racer, P40 Fighter and a Stinson Reliant.

Deadly Dentals

The clinic staff at CFB Moose Jaw have decided that severe winters make indoor pistol shooting an excellent pastime. The basic weapon is the Browning "Challenger" .22 semi-automatic, fired at a range of 20 yards.

The fourteen club members are enthusiastic and are working toward the award of crests for shooting achievements.

NOBODY skips annual recall around here!



Standing: Cpl R Jones, Capt TA Rawlyck, Cpl LC Street. Kneeling: Sgt W Olynyk, Capt RS Sorochan, Sgt NC Petersen.

15 DENTAL UNIT

by Lieutenant V.L. Kwasnik

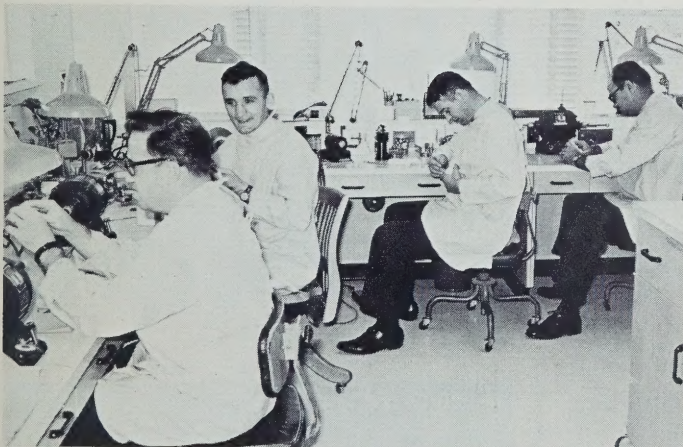
This'n'That

Dental officers at Bagotville have been complaining about the poor quality of tubing in their dental units - apparently Bagotville mice have developed a taste for Japanese hose ... Col MacDougall, Maj Bisailon and Cpts Meunier,

Roy and Paquin attended the Montreal Fall Clinic, 23-25 October ... Capt RJ Kokotailo returned to CFDSS after being with 15 Dental Unit supply from 25 Sep-

tember to 1 December ... Capt JRJ Cote now at Valcartier clinic on posting from Gagetown ... Maj GIJ Bisailon was awarded his 1st Clasp to the CD ...

The clinic staff at CFB St Jean witnessing Cpl Beaulieu being presented his CD by LCol Begin.



New central laboratory staff, St Hubert. (Left to right): Sgt TR O'Mara, Sgt HK Gapmann, Sgt A Schuh, MWO M Beauvais.

Christmas Party

This year's party was held in the Social Centre St Hubert Garrison on 8 Dec. Close to 60 members/wives/girl (no boy?) friends attended despite the adverse weather that night. The guests gathered around the punchbowl on arrival and it wasn't long before many were up and dancing. This year Col George MacDougall broke with tradition and let the Chef do his thing with the turkey.

Physical Fitness

The semi-annual physical fitness tests were held recently at St Hubert. Most of our personnel passed. Our best runner was Sgt Hans Gapmann with a time of 8.59 for the mile and a half ... Sgt Garnhum received an award from BGen Archambault for completing 50 miles running during the noon hour in the "Run For Your Life" voluntary physical fitness program.

DENTAL SERVICES

NDHQ

Quarterly Editorial Board

The inside of the cover of this issue of The Quarterly indicates that Col JW Turner has retired from the editorial board. Since 1966 he has been the senior member of the board and as such has provided the guidance and inspiration required for a successful publication. Col GR Covey has assumed the role of Director of Dental Treatment Services and in that capacity has become the senior member of the editorial board.

DENTAL DETACHMENT CYPRUS

Update

The dental team of Capt PW Williams, Sgt D Hardy and Sgt BL Mackie took over from Capt G Ames, Sgt B Hannay and Sgt M Allen in October. The weather has been super, with only two days of real rain since we arrived. It is bad for the crops but great for us. The natives are friendly.

Christmas Day saw the gung-ho Dents on outpost duties and manning switchboards as contingent duties were done by the officers and senior NCOs to give the junior ranks the day off.

35 FIELD DENTAL UNIT

by Sergeant W.B. Looker

Touring

LONDON: LCol and Mrs Donely, Sgt and Mrs Looker, MCpl and Mrs James, MCpl and Mrs Jones, MCpl and Mrs Craig ... AMSTERDAM: Capt and Mrs Ron Gish ... AUSTRIA: Sgt Bev Gilkes ... CYPRUS: Sgt and Mrs Tom Taylor ... SPAIN: Maj and Mrs Yates ... PORTUGAL: Capt and

Mrs Morrow ... ROME: Sgt and Mrs Wormington ... CANADA: Cpl and Mrs Lamontagne, WO and Mrs Deloughery, MCpl and Mrs James ... the rest of the unit stayed and worked.

Festive Season

The festive season has come and gone for another year in Europe with most military personnel spending a quiet(??) time at home. There was the usual round of clinic parties, regimental and base functions.

Sports

The now famous and much disputed "Horse's Head" trophy has been reported missing from the Lahr clinic. This trophy mysteriously disappeared shortly after the hard fought hockey game in Lahr. The Baden team, who practised regularly in anticipation of this long-awaited game, soundly defeated the Lahr group (hockey team?) of non-skaters. However, revenge is being contemplated by Lahr, and all clinic personnel are now required to take part in regular sessions of P.T. (e.g. arm bending, etc).



The Baden Bad Guys



The Lahr Malingerers. Only two penalties were given out for holding ... the linesmanwoman.

11th ANNUAL

CFDS

BONSPIEL

2~3 MARCH

CFB Borden



D. Sun

Professional Training

University of Michigan

Endodontics

Maj DE McDermott, 27 Nov-8 Dec 72

Pedodontics

Capt AP Charlebois, 16-20 Oct 72

Walter Reed Army Medical Center

Preventive Dentistry

Capt MS Bouris, 16-20 Oct 72

Dalhousie University

Oral Surgery

Maj HM Amos, 29 Dec 72 - Jan 75

Canadian Forces Training

CF Dental Services School

Removable Partial Dentures/Restorative Dentistry, 18 Oct-8 Nov 72

LCol HR Kettys, Capts JC Ayotte, WO Donald, RJ Burns, RP Schow, FR Margetts

Periodontics, 15-29 Nov 72

Maj JCE McDonald, Capts P Kozak, HA Chestnut, AE Rocque, JD Rowat, EW Graham.

CF School Administration and Logistics

Logistic Offrs Conversion (Sup/Fin)

Capt JR Savoie, 11 Sep-3 Nov 72

Logistic Offrs Conversion (Tn)

Capt JR Savoie, 6-28 Nov 72

Personnel Support (Admin), 9 Jan-16 Feb 73

Capt WA Jackson, Lt DE Fraser

Packaging, 16 Oct-3 Nov 72

WO JG McPhee

CF School of Management

Advanced Management, 24 Oct-10 Nov 72

Maj W Budzinski

Middle Management

Lt RJ Rutledge, 11 Oct-2 Nov 72

Capt RCA Fearon, 7-30 Nov 72

Banff School of Fine Arts

French Language Training

LCol JJN Wright, 16 Oct-3 Nov 72

Training with Industry

Ritter Dental Equipment Co.

Ritter Dental Equipment, 9-20 Oct 72

Sgt JP Cliche, Cpl AM Wilson

Promotions

Colonel

G MacDougall, 15 Nov 72. Col MacDougall is a 1945 McGill graduate and is now CO 15 Dental Unit. His previous service was in Germany, England, Middle East and Ottawa.



Lieutenant-Colonel

LA Reynolds, AG Taylor

Captain: ST Gordon

Chief Warrant Officer: KE Laurence

Warrant Officer: IA Braslins

Sergeant: TH Taylor

Master Corporal: JM Arbour, RC North, VG Frank

Corporal: LD Payette, KR Lamont, D Duncan

Welcome * Bienvenue

A cordial welcome to the Canadian Forces Dental Services is extended to: Capt ST Gordon, Miss Christine Donovan, Mrs M Bernard, Mrs W Livingston, Sgt W Kosowon, Mrs C Stark, Sgt(W) EA Snippa.

Au Revoir *

Farewell

The best of luck to: Col SG Bagnall, Pte(W) VR Mody, WO DR Piche, Maj VO Bergland, Mrs D McLary, Sgt JR D'Eon, Mrs L Audet

Vital Statistics

Marriages

Congratulations and many years of happiness to: Cpl(W) MR Williams and Cpl R Ellsworth; Miss Jean Cusson and Cpl D Purich; Pte(W) LC Vardy and Pte EL Martyn; Cpl(W) TD Manuge and Cpl A Nolet.

Births

Daughters: Maj and Mrs JJ Jacques; Capt and Mrs JG Gagnon; MCpl and Mrs JM Arbour; Sgt and Mrs JF Giroux.

Sons: Cpl and Mrs RA Gayler; Sgt and Mrs LI MacLean; Capt and Mrs F Griesbrecht; MCpl and Mrs HJ MacGillivray; MWO and Mrs WJ Parker; Capt and Mrs DK MacKenzie; Capt and Mrs DR Wright; Sgt and Mrs P Bosch; Capt and Mrs AP Charlebois; Capt and Mrs LR Holland.

Bereavements

Deepest sympathy is extended to: LCol PS Sills on the loss of his mother and to Col LG Craigie and Sgt AF Randall on the loss of their fathers.

In Memoriam

We have learned with regret that Don Playford, a former laboratory technician with the Royal Canadian Dental Corps died January 26th., as the result of an automobile accident near Kingston, Ontario. Deepest sympathy is extended to Mrs. Playford and family.

CFB Gagetown Dental Detachment



(Left to Right) Rear: Sgt Malcolm Longford, Sgt John MacLean, Cpl Mike St Pierre, WO Jim Atherton, Cpl Bob Clarke. Middle: Sgt Bob Scheer, Cpl Lou Parker, Cpl Deon Allen, Cpl Ed Barnes, Cpl Dick Leblanc, Mrs Margaret Hudson. Front: WO Chris Christiansen, WO Al Lambert, LCol Ty Cobb, Maj Duncan Petrie, Capt Paul Lavallee, Capt Les Hudgins, Capt Wally Donald. Missing: MWO Harvey Reid, Sgt Mac Allen.

The circle is nearly closed...



RCAF Station Ottawa dental clinic in May of 1940. Then RCAF Station Rockcliffe, then CFB Rockcliffe, and now CFB Ottawa (North) in 1973.

7 DAYS

THIS BOOK MAY BE KEPT FOR
7 DAYS ONLY
IT CANNOT BE RENEWED

FEB 13 1975

RK
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C393
v.11-13

The Canadian forces dental
services quarterly

Date

U. of T.
ces. Quarterly

NAME OF BORROWER

FEB 13 1975

